

NINETEENTH ACADEMIC YEAR.

ANNUAL REGISTER

OF THE

UNITED STATES NAVAL ACADEMY,

AT

ANNAPOLIS, MD.,

FOR

THE ACADEMIC YEAR 1868-'69.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1868.

NAVAL SCHOOL.

FOUNDED OCTOBER 10, 1845.

JAMES K. POLK, *President of the United States.*
GEORGE BANCROFT, *Secretary of the Navy.*

The Naval School was reorganized on the 1st July, 1850, under the title of Naval Academy, as a school of theoretical and practical science. At that time the course of instruction was materially enlarged, and the institution was placed under the supervision of the Chief of the Bureau of Ordnance and Hydrography.

In October, 1851, the present course of instruction of four years was adopted.

On the establishment of the Bureau of Navigation, (July 5, 1862,) the Academy was placed under its supervision.

Since March 1, 1867, it has been under the direct care and supervision of the Secretary of the Navy, and its departmental administrative routine and financial management conducted through the Bureau of Navigation, in the Navy Department.

BOARD OF VISITORS.

The following named gentlemen were invited by the Hon. Secretary of the Navy to attend the examination of the Midshipmen of the Naval Academy in May, 1868 :

Rear-Admiral CHARLES H. BELL, U. S. N., *President.*
Commodore THEODORE P. GREENE, U. S. N.
JAMES S. BIDDLE, Esq., Pennsylvania.
Hon. JOHN SCOTT, Lieutenant Governor of Iowa.
Paymaster EDWARD T. DUNN, U. S. N.
Chief Engineer WILLIAM H. SHOCK, U. S. N.
Captain J. R. M. MULLANY, U. S. N.
Surgeon PHILIP LANSDALE, U. S. N.

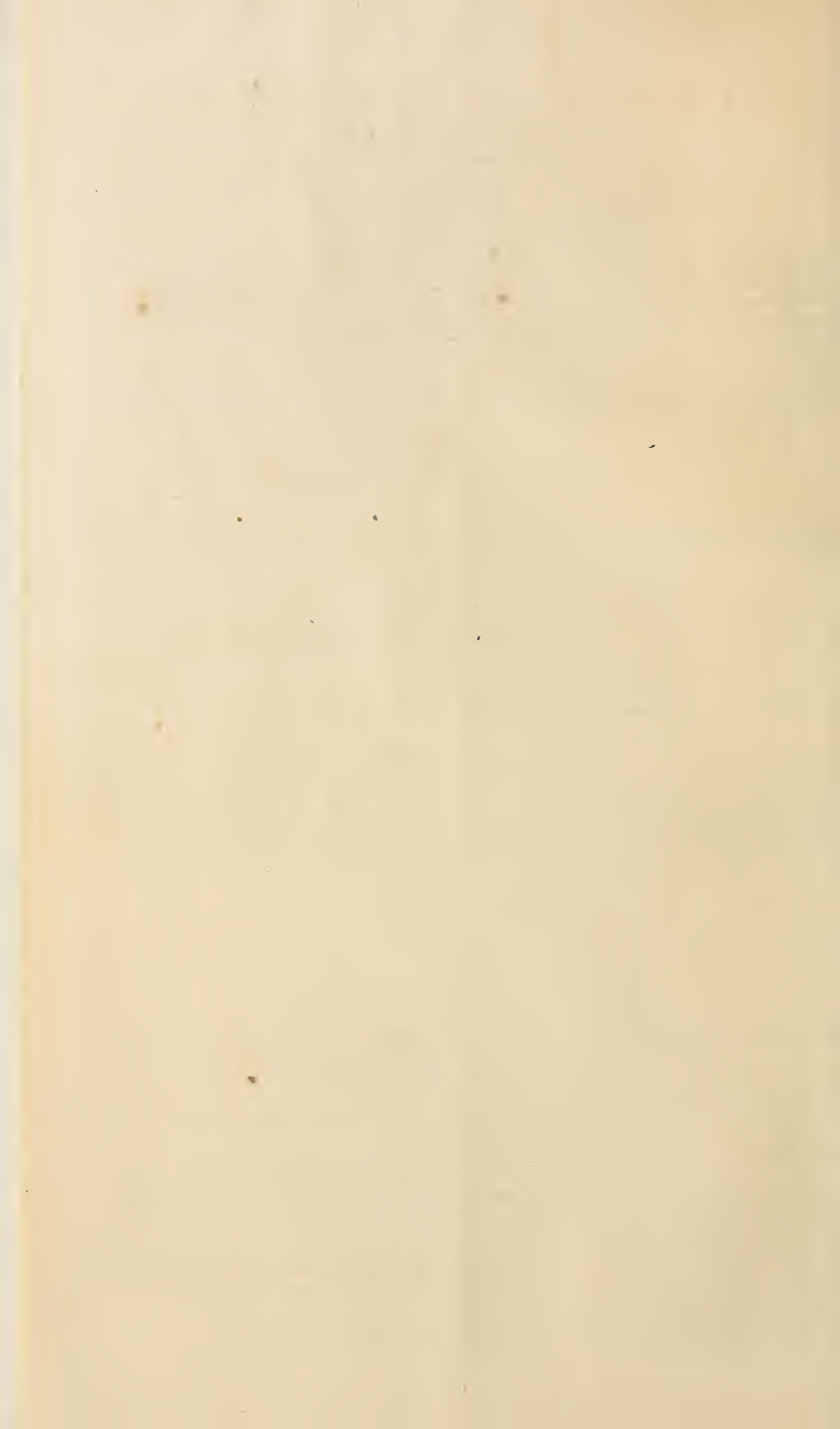
EXTRACT FROM THE REGULATIONS OF THE NAVAL ACADEMY.

CHAP. VI, SEC. 9.—The Secretary of the Navy will, when expedient, annually invite not less than seven persons, such as he may judge well qualified, to attend at the Academy during the May examination as a Board of Visitors, for the purpose of witnessing the examination of the graduating and other classes, and of examining into the state of the police, discipline, and general management of the institution ; the result of which examination they will report to the Secretary of the Navy.

ACADEMIC BOARD.

DAVID D. PORTER, Vice-Admiral, *President.*

NAPOLEON B. HARRISON, Captain..... *Commandant of Midshipmen, Head of Department of Seamanship, Gunnery, Naval and Infantry Tactics, &c.*
JOSEPH S. SKERRETT, Commander..... *Assistant to Commandant of Midshipmen, in charge of Department of Seamanship, &c.*
EDMUND O. MATTHEWS, Lieut. Com'r... *Assistant to Commandant of Midshipmen, in charge of Department of Gunnery, &c.*
GEORGE DEWEY, Lieut. Com'r *Assistant to Commandant of Midshipmen, in Executive Duty in charge of School Ship Constitution.*
CHARLES L. FRANKLIN, Lieut. Com'r... *Assistant to Commandant of Midshipmen, in Executive Duty.*
WILLIAM H. WILLCOX, Professor..... *Head of Department of Mathematics.*
THOM WILLIAMSON, Chief Engineer..... *Head of Department of Steam Enginery.*
ROBERT L. PHYTHIAN, Lieut. Com'r.... *Head of Department of Astronomy, Navigation, and Surveying.*
HENRY H. LOCKWOOD, Professor *Head of Department of Natural and Experimental Philosophy.*
FRANCIS B. BLAKE, Lieut. Com'r..... *Head of Department of Ethics and English Studies.*
LEOPOLD V. DOVILLIERS, Professor.... *Head of the Department of French.*
EDWARD A. ROGET, Professor *Head of the Department of Spanish.*
EDWARD P. LULL, Lieut. Com'r..... *Head of the Department of Drawing.*



OFFICERS OF THE NAVAL ACADEMY.

Vice-Admiral DAVID D. PORTER, *Superintendent.*

Commander JOHN G. WALKER, *Assistant to Superintendent.*

JAMES M. ALDEN, *Secretary to Vice-Admiral.*

ACADEMIC STAFF.

Captain NAPOLEON B. HARRISON	<i>Commandant of Midshipmen, Head of Department of Seamanship, Gunnery, Naval and Infantry Tactics, &c.</i>
Commander JOSEPH S. SKERRETT	<i>Assistant to Commandant of Midshipmen, and Senior Instructor in Seamanship and Naval Tactics.</i>
Lieut. Com'r THOMAS L. SWANN	} <i>Assistants to Commandant of Midshipmen, and Assistant Instructors in Seamanship and Naval Tactics.</i>
Lieut. Com'r SILAS CASEY	
Lieut. Com'r MERRILL MILLER	
Lieut. Com'r PHILIP H. COOPER	
Lieut. Com'r EDMUND O. MATTHEWS	<i>Assistant to Commandant of Midshipmen, and Senior Instructor in Naval Gunnery, Infantry Tactics, and Howitzer Drill.</i>
Lieut. Com'r EDWARD TERRY	} <i>Assistants to Commandant of Midshipmen, and Assistant Instructors in Naval Gunnery, Infantry Tactics, and Howitzer Drill.</i>
Lieut. Com'r GEORGE C. REMEY	
Lieut. Com'r SIMEON P. GILLET	
Lieut. Com'r GEORGE DEWEY	<i>Assistant to Commandant of Midshipmen, and Senior Assistant in Executive Duty, in charge of the School Ship Constitution and other vessels.</i>
Lieut. Com'r CHARLES L. FRANKLIN	} <i>Assistants to Commandant of Midshipmen, in Executive Duty.</i>
Lieut. Com'r JOHN F. MCGLENSEY	
Lieut. Com'r JOHN R. BARTLETT	
Lieut. Com'r A. S. CROWNINSHIELD	
Lieut. Com'r WILLIAM B. HOFF	
Lieut. Com'r FRANCIS A. COOK	
WILLIAM H. WILLCOX, Professor	<i>Head of Department of Mathematics.</i>
JOHN A. HOWELL, Lieut. Com'r	} <i>Acting Assistant Professors of Mathematics.</i>
ALEX. H. MCCORMICK, Lieut. Com'r	
HENRY L. JOHNSON, Lieut. Com'r	
WILLIAM W. MACLAY, Lieut. Com'r	
PURN'L F. HARRINGTON, Lieut. Com'r	} <i>Assistant Professors of Mathematics.</i>
JOHN M. RICE	
WILLIAM W. JOHNSON	
CHARLES F. JOHNSON	
THOM WILLIAMSON, Chief Engineer	<i>Head of Department of Steam Enginry.</i>
CHARLES E. DEVALIN, 1st Ass't Eng'r	} <i>Assistant Instructors in the Department of Steam Enginry.</i>
EDWARD B. LATCH, 1st Ass't Eng'r	
LOUIS J. ALLEN, 1st Ass't Eng'r	
GEORGE R. HOLT, 2d Ass't Eng'r	
JOHN C. KAUFER, 2d Ass't Eng'r	
ROBERT L. PHYTHIAN, Lieut. Com'r	<i>Head of Department of Astronomy, Navigation, and Surveying.</i>
JAMES O'KANE, Lieut. Com'r	} <i>Acting Assistant Professors of Astronomy, Navigation, and Surveying.</i>
GEORGE P. RYAN, Lieut. Com'r	
CHARLES J. WHITE	<i>Assistant Professor of Astronomy, Navigation, and Surveying.</i>
HENRY H. LOCKWOOD, Professor	<i>Head of Department of Natural and Experimental Philosophy.</i>
WILLIAM T. SAMPSON, Lieut. Com'r	} <i>Acting Assistant Professors of Natural and Experimental Philosophy.</i>
RICH'D H. THURSTON, 1st Ass't Eng'r	
JOHN W. LANGLEY	<i>Assistant Professor of Natural and Experimental Philosophy.</i>
FRANCIS B. BLAKE, Lieut. Com'r	<i>Head of Department of Ethics and English Studies.</i>
BARTLETT J. CROMWELL, Lieut. Com'r	<i>Acting Assistant Professor of Ethics and English Studies.</i>
THOMAS KARNEY	} <i>Assistant Professors of Ethics and English Studies.</i>
WILLIAM W. FAY	
JOSEPH E. DICKSON	
ROBBINS LITTLE	
JOHN J. ARCHER	
WILLIAM E. BOWEN	
HENRY F. BUSWELL	

LEOPOLD V. DOVILLIERS, Professor	<i>Head of Department of French.</i>
ALPHONSE V. S. COURCELLE.....	} <i>Assistant Professors of French.</i>
LUCIEN F. PRUD'HOMME.....	
EUGENE DOVILLIERS.....	
JULES LEROUX.....	
BERNARD MAURICE.....	
EDMUND A. ROGET, Professor.....	<i>Head of Department of Spanish.</i>
WINFIELD S. SCHLEY, Lieut. Com'r ..	} <i>Acting Assistant Professors of Spanish.</i>
CHARLES F. BLAKE, Lieut Com'r.....	
PEDRO MONTALDO	<i>Assistant Professor of Spanish.</i>
EDWARD P. LULL, Lieut. Com'r.....	<i>Head of Department of Drawing.</i>
HENRY HITCHINGS.....	} <i>Assistant Professors of Drawing.</i>
MARSHAL OLIVER	
ANDREW W. WARREN.....	
ANTOINE J. CORBESIER.....	<i>Sword Master.</i>
THEODORE MAURICE.....	} <i>Assistant Sword Masters.</i>
ADOLPHE AUBRY	
MATTHEW STROHM	<i>Boxing Master and Gymnast.</i>

OFFICERS NOT ATTACHED TO THE ACADEMIC STAFF.

Commander BUSHROD B. TAYLOR.....	<i>In charge of Grounds, &c.</i>
Captain McLANE TILTON, U. S. M. C.....	<i>Commanding Marine Guard.</i>
DAVID HARLAN.....	<i>Surgeon.</i>
GEORGE H. COOKE.....	<i>Passed Assistant Surgeon.</i>
LUTHER M. LYON	<i>Passed Assistant Surgeon.</i>
WILLIAM S. WILLIS.....	<i>Assistant Surgeon.</i>
JOHN S. GULICK.....	<i>Paymaster.</i>
GILBERT E. THORNTON	<i>Paymaster, (Storekeeper.)</i>
DONALD McLAREN.....	<i>Chaplain.</i>
RICHARD SWANN.....	<i>Commissary.</i>
JAMES J. GRAFF	<i>Assistant Librarian.</i>
RICHARD M. CHASE.....	<i>Secretary of the Academy.</i>
JAMES P. MARRON.....	<i>First Clerk to Superintendent of Academy.</i>
OWEN D. ROBB	<i>Second " " "</i>
JAMES TILTON.....	<i>Third " " "</i>
JAMES HUTCHINSON	<i>Gunner.</i>
JOHN SOUTHWICK.....	<i>Carpenter.</i>

MIDSHIPMEN

ON PROBATION AT THE NAVAL ACADEMY,

ARRANGED

IN ORDER OF MERIT IN THEIR RESPECTIVE CLASSES,

AS DETERMINED AT THE

GENERAL EXAMINATION IN MAY, 1868;

TOGETHER WITH

THE MIDSHIPMEN ADMITTED IN JUNE AND SEPTEMBER, 1868, FORMING
THE FOURTH CLASS OF 1868-'69.

NOTES.

Midshipmen whose names are marked thus * are the five most distinguished in their respective classes.

Those marked thus † were found deficient, but were allowed to continue in their classes on condition of passing at a re-examination.

Those marked thus ‡ were found deficient, and turned back to recommence the studies of their respective classes.

Those marked thus § were found deficient, and recommended for discharge.

MIDSHIPMEN ON PROBATION AT THE NAVAL ACADEMY.

First Class—Graduating Class of 1868—81 Members.

Order of general merit.	NAME.	STATE.	DATE OF ADMISSION.	Age at date of admission.		ORDER OF MERIT IN—													Sea service in practice ships.	
						Seamanship.	Gunnery.	Naval Tactics.	Naval Construction.	Fencing.	Steam.	Navigation.	Physics.	Political Science.	French.	Spanish.	Conduct.			
				Years.	Months.													Months.	Days.	
*1	Charles C. Cornwell....	Utah T'y.	Sep. 20, 1864	16	9 13	17	7	3	15	5	3	12	4	6 14	2	9 5	9 5			
*2	Royal R. Ingersoll....	Mich....	July 23, 1864	16	7 3	3	1	10 39	8	15	16	5	27 41	18	9 5	9 5				
*3	Robert M. G. Brown....	W. Va....	July 22, 1864	16	7 12	1	26	4 3	15	2	7	3	52 31	3	9 5	9 5				
*4	Adolphus Marix.....	Iowa....	Sep. 26, 1864	16	4 5	6	13	5 4	10	6	2	7	7 18	74	9 5	9 5				
*5	Duncan Kennedy.....	N. Y....	July 20, 1864	16	7 2	2	22	17. 16	3	27	4	22	23 45	46	9 5	9 5				
6	James D. J. Kelley....	At large.	Oct. 5, 1864	16	9 1	4	2	20 80	7	11	5	5	12 31	12	9 5	9 5				
7	Jefferson F. Moser....	Penn....	Sep. 29, 1864	16	4 10	13	14	11 19	10	7	10	9	23 17	7	9 5	9 5				
8	Charles A. Stone.....	Penn....	July 27, 1864	17	1 23	8	8	8 65	36	1	1	10	39 48	67	9 5	9 5				
9	Hobart L. Tremain....	S. C....	Sep. 26, 1864	17	4 16	10	4	19 27	17	34	18	15	27 26	39	9 5	9 5				
10	Robert M. Thompson..	Penn....	July 30, 1864	15	5 4	9	28	6 35	2	16	5	17	36 26	20	6 10	9 5				
11	Raymond P. Rodgers...	Son of off.	July 25, 1864	14	7 21	11	12	1 32	57	9	25	28	14 30	28	9 5	9 5				
12	Ambrose B. Wyckoff...	Ill....	Sep. 29, 1864	16	5 14	12	3	12 62	14	13	9	2	43 24	10	9 5	9 5				
13	Richard C. Derby....	Idaho T.	Sep. 20, 1864	17	5 31	64	10	12 40	47	5	57	15	2 2	60	9 5	9 5				
14	Robert T. Jasper.....	N. Y....	July 21, 1864	17	7 33	35	21	16 71	25	8	14	11	36 26	66	9 5	9 5				
15	Seaton Schroeder.....	S. C....	Sep. 27, 1864	15	1 6	25	36	65 9	9	67	37	56	1 1	71	9 5	9 5				
16	Huntington Smith....	Ind....	Feb. 26, 1863	15	11 35	5	37	20 42	6	10	8	14	25 10	31	12 15	9 5				
17	Frederic E. Upton....	Maine...	Nov. 10, 1864	16	10 65	26	37	9 72	74	4	12	12	15 6	70	9 5	9 5				
18	Lambert G. Palmer....	Son of off.	July 20, 1863	14	9 15	46	23	7 36	22	22	29	22	64 39	4	9 20	9 5				
19	Franklin J. Drake....	N. Y....	Feb. 23, 1863	16	11 8	26	16	43 10	20	17	24	75	70 51	25	12 20	9 5				
20	Theodorus B. M. Mason.	Fla....	Sep. 20, 1864	16	4 30	20	63	36 8	23	46	41	41	4 18	16	9 5	9 5				
21	Jesse B. Smith.....	Vt....	July 28, 1864	17	11 42	29	27	2 37	13	19	3	17	43 8	53	9 5	9 5				
22	Charles W. Chipp....	N. Y....	July 23, 1863	14	11 7	43	32	17 12	23	21	52	49	47 79	13	9 20	9 5				
23	Alfred Elliot.....	S. C....	Sep. 23, 1864	16	4 45	33	33	30 50	25	39	34	49	29 39	9	9 5	9 5				
24	Nathan H. Barnes....	Ill....	July 27, 1863	16	11 32	15	24	20 28	29	54	28	25	18 18	41	12 11	9 5				
25	Thomas C. McLean....	N. Y....	Sep. 21, 1864	16	11 25	16	6	61 26	1	42	15	21	33 61	52	9 5	9 5				
26	William J. Barnett....	N. Y....	July 27, 1864	17	6 38	18	19	44 29	51	47	18	33	62 45	18	9 5	9 5				
27	Charles T. Forse....	Ky....	Sep. 29, 1863	17	2 51	7	67	71 76	36	49	16	30	17 48	6	9 20	9 5				
28	Herbert C. Stinson....	Maine...	Sep. 30, 1864	15	2 52	19	35	35 44	52	29	64	22	15 13	36	9 5	9 5				
29	Boutelle Noyes....	Va....	Sep. 26, 1864	16	8 9	24	8	55 58	29	70	44	37	29 24	73	9 5	9 5				
30	Warner M. Cowgill....	Del....	Sep. 23, 1863	14	11 39	22	50	38 11	40	14	18	1	9 4	45	9 20	9 5				
31	Edwin K. Moore.....	Ohio....	Oct. 1, 1864	17	2 11	23	10	40 17	10	60	26	49	64 45	8	9 5	9 5				
32	Washington O. Sharrer.	Md....	Sep. 27, 1864	16	3 36	35	15	27 56	31	23	29	54	50 41	4	9 5	9 5				
33	Albion V. Wadhams...	N. Y....	Sep. 16, 1864	17	3 36	28	41	14 49	18	36	27	45	64 26	13	9 5	9 5				
34	Webster Doty.....	Wis....	July 27, 1864	16	9 27	32	55	24 21	25	64	50	66	18 51	41	9 5	9 5				
35	Theodore T. Wood....	N. J....	Sep. 29, 1864	17	7 18	38	48	50 57	20	25	39	30	5 3	56	9 5	9 5				
36	George W. Tyler.....	La....	Oct. 3, 1864	16	11 68	55	45	47 46	36	24	51	62	9 9	15	9 5	9 5				
37	John C. Irvine.....	Ill....	Sep. 26, 1864	16	6 69	42	24	54 48	32	35	10	43	64 38	20	9 5	9 5				
38	Samuel R. Crumbaugh.	Ky....	Feb. 20, 1863	17	8 73	31	53	50 53	18	37	41	72	36 10	39	12 15	9 5				
39	Nicholas L. Roosevelt..	N. Y....	Sep. 27, 1864	17	3 26	21	49	34 1	3	62	22	62	59 68	62	9 5	9 5				
40	Jerome B. House....	N. Y....	July 23, 1864	16	10 47	35	60	31 69	61	12	21	19	52 56	58	9 5	9 5				
41	William H. Beehler....	Md....	July 28, 1864	16	4 57	14	20	26 78	36	28	23	13	29 7	43	9 5	9 5				
42	Horace McElroyt....	Wis....	Sep. 24, 1863	14	11 52	58	41	14 66	66	73d	52	20	13 10	20	12 2	9 5				
43	William E. Uhler.....	Penn....	July 27, 1864	17	6 77	48	60	23 41	42	18	36	35	20 31	24	9 5	9 5				
44	Charles W. Jarboe....	Md....	Sep. 20, 1864	16	0 54	50	18	44 38	54	45	35	35	21 31	59	9 5	9 5				
45	George K. Bower....	Penn....	Sep. 26, 1864	16	5 58	40	60	28 20	47	26	55	25	47 5	34	9 5	9 5				
46	James D. Adams....	Miss....	Sep. 27, 1864	16	5 17	43	30	31 73	42	31	39	67	39 18	34	9 5	9 5				
47	Thomas A. De Blois...	Ga....	Sep. 21, 1863	15	8 76	39	45	75 2	35	65	33	47	3 14	11	9 20	9 5				
48	William Woart.....	Maine...	Sep. 28, 1863	16	9 22	30	64	78 31	61	61	59	45	47 70	33	9 5	9 5				
49	Richard Wainwright...	Son of off.	Sep. 28, 1864	14	9 60	53	33	53 24	32	20	44	30	69 55	78	11 17	9 5				
50	James R. Selfridge....	Cal....	July 21, 1864	15	0 20	58	51	33 52	66	41	47	48	70 44	26	9 5	9 5				
51	Charles P. Welch....	Mo....	Sep. 29, 1864	17	1 49	50	55	37 30	54	50	43	49	56 56	30	9 5	9 5				
52	John B. Robinson....	Penn....	July 31, 1864	16	2 66	57	68	39 34	52	56	47	8	43 51	75	11 17	9 5				
53	Charles A. Adams....	Wis....	July 23, 1863	16	11 48	45	54	40 25	54	51	69	49	39 41	48	9 20	9 5				
54	William H. Everett....	Conn....	July 21, 1863	16	4 44	50	44	49 74	47	33	66	76	75 66	32	9 20	9 5				
55	Charles F. Norton....	Col. T'y.	July 22, 1863	15	10 72	63	70	25 14	46	30	55	38	22 31	50	9 20	9 5				
56	John M. Hawley.....	Mass....	July 23, 1863	16	11 64	64	72	55 75	66	74	37	28	59 73	36	9 20	9 5				
57	Samuel Ames.....	R. I....	July 23, 1864	15	3 50	33	81	40 79	41	40	57	55	70 59	46	9 5	9 5				
58	Thomas H. Stevens....	Son of off.	Sep. 29, 1863	15	2 41	41	74	47 18	57	33	32	59	11 18	50	9 20	9 5				
59	Andrew C. McMechan..	Neb. T'y.	Feb. 24, 1863	16	7 74	66	69	46 67	25	76	61	68	59 77	1	12 15	9 5				
60	James K. Cogswell....	Wis....	Sep. 23, 1863	16	0 62	46	45	60 13	59	66	31	25	52 31	63	9 20	9 5				
61	Thomas N. Lee.....	D. C....	Sep. 23, 1863	16	1 46	61	43	62 54	61	44	79	68	25 51	43	9 20	9 5				
62	John A. Rodgersf....	Son of off.	July 29, 1863	15	0 63	49	59	64 33	71	78d	68	41	81 78	53	12 2	9 5				

First Class—Continued.

Order of general merit.	NAME.	STATE.	DATE OF ADMISSION.	Age at date of admission.		ORDER OF MERIT IN—													Sea service in practice ships.	
				Years.	Months.	Seamanship.	Gunnery.	Naval Tactics.	Naval Construction.	Fencing.	Steam.	Navigation.	Physics.	Political Science.	French.	Spanish.	Conduct.	Months.	Days.	
63	James W. Carlin.....	Ill.....	July 23, 1864	16	2	24	54	5	55	22	77	38	69	40	7	14	79	11	17	
64	George K. Adams.....	N. Y.....	Aug. 1, 1864	15	9	71	70	77	29	70	61	43	52	33	62	48	17	9	5	
65	George C. Wallace	Ind.....	July 20, 1864	16	11	78	56	30	67	61	42	55	61	43	33	60	23	9	5	
66	James C. Hull.....	N. Y.....	Sep. 27, 1861	14	6	18	68	65	62	60	32	58	60	71	75	64	57	11	20	
67	Theodore M. Etting....	Penn.....	Nov. 25, 1862	16	6	70	78	77	55	81	76	48	76	76	33	74	53	12	15	
68	Gottfried Blochlinger..	Iowa.....	July 21, 1863	14	9	23	58	58	69	23	78	68	49	78	56	65	28	9	20	
69	Perry Garst	Ill.....	July 25, 1863	15	0	59	62	39	72	77	78	57	64	56	52	23	36	9	20	
70	Frederic Singer.....	Ohio.....	July 27, 1863	16	2	61	72	28	68	45	45	69	72	56	39	75	64	9	20	
71	Arthur B. Speyers.....	N. Y.....	July 23, 1863	16	11	54	71	70	70	55	69	59	72	59	32	62	69	9	20	
72	Ebenezer S. Prime†....	Ohio.....	Sep. 21, 1863	16	8	75	74	79	80	d	64	75	32	71	73	77	37	60	12	2
73	Hamilton M. Tallman..	N. Y.....	Feb. 27, 1863	14	0	67	79	73	66	51	60	71	44	65	43	66	64	12	15	
74	Arthur H. Parsons.....	Ohio.....	July 27, 1864	16	10	79	69	51	74	47	70	77	75	38	78	70	48	9	5	
75	Francis W. Perkins†...	Conn.....	Sep. 23, 1862	15	9	40	80	16	80	d	5	73	80	76	70	80	78	def	11	17
76	James R. Fletcher.....	Tenn.....	Sep. 26, 1864	16	8	43	67	76	76	68	47	79	76	61	74	58	76	11	17	
77	Charles A. Copp.....	En'd boy	Nov. 5, 1864	17	3	29	77	40	73	7	15	75	67	78	78	68	72	9	5	
78	William C. Strong.....	Son of off.	Sep. 22, 1864	16	3	56	76	80	52	43	61	63	72	74	56	62	81	11	17	
79	Nathan E. Niles	Penn.....	July 28, 1864	16	7	62½	75	66	77	63	72½	72	55½	62	64	60½	67	9	5	
80	Edward M. Day.....	La.....	Sep. 23, 1863	15	0	34	73	55	59	59	72	52	61	80	51	72	80	12	2	
	Charles Seymour.....	Oregon..	July 28, 1864	17	3	a	a	a	a	a	a	a	a	a	a	a	26	8	21	

a—Absent from the examination by reason of sickness.

Second Class—82 Members—1868.

Order of general merit.	NAME.	STATE.	DATE OF ADMISSION.	Age at date of admission.		ORDER OF MERIT IN—															Sea service in Practice Ships.	
						Scamanship.	Gunnery.	Naval Construction.	Infantry Tactics.	Fencing.	Mathematics.	Steam.	Astronomy and Navigation.	Mechanics.	French.	Spanish.	Conduct.					
																		Months.	Years.	Months.		
*1	Charles P. Perkins.....	Mass ..	July 21, 1865	17	5	12	4	2	3	25	1	7	14	2	1	4	6	8	10			
*2	Henry M. M. Richards..	Penn..	July 21, 1865	16	11	24	16	6	21	22	4	3	3	9	5	5	10	8	10			
*3	Louis E. Bixler.....	Penn..	Sep. 27, 1865	16	8	14	1	5	32	23	18	2	7	29	22	17	9	8	10			
*4	Clinton K. Curtis.....	W. Va.	Sep. 28, 1865	16	5	14	10	24	6	8	12	10	15	14	30	24	17	8	10			
*5	William P. Potter.....	N. Y ..	Sep. 27, 1865	15	4	32	6	10	14	10	9	17	22	16	6	14	24	8	10			
6	Benj. H. Buckingham ..	Ohio ..	July 22, 1865	17	5	5	8	3	4	39	6	20	32	7	18	26	48	8	10			
7	Edwin H. Wiley.....	Ill	July 28, 1865	17	10	9	9	28	10	34	32	9	50	12	14	9	5	8	10			
8	Sumner C. Paine.....	Me.....	Sep. 22, 1865	17	1	7	12	19	15	37	10	13	11	10	45	34	42	8	10			
9	William H. Turner.....	Ohio ..	July 22, 1865	17	6	45	21	36	18	31	15	12	6	7	36	29	2	8	10			
10	Giles B. Harber.....	Ohio ..	July 24, 1865	15	10	27	29	17	23	3	8	34	12	3	4	2	47	8	10			
11	Charles R. Brown.....	N. H ..	Sep. 22, 1865	16	7	18	27	44	9	62	2	30	4	1	11	1	69	8	10			
12	William W. Kimball...	S.of off.	July 31, 1865	17	7	1	7	10	15	60	19	43	25	24	26	15	11	8	10			
13	John C. Wilson.....	N. Y ..	July 24, 1865	16	0	17	17	15	24	9	21	23	8	10	40	23	36	8	10			
14	Joseph B. Hobson.....	Iowa ..	July 28, 1865	15	2	19	14	15	26	48	5	31	1	6	21	8	68	8	10			
15	Edward A. Field.....	Conn..	July 22, 1865	17	10	8	13	7	5	19	26	46	17	20	12	10	43	8	10			
16	John Garvin.....	Ohio ..	July 22, 1865	16	9	12	3	14	2	15	27	49	28	18	27	33	22	8	10			
17	Henry O. Handy.....	Mass ..	July 25, 1865	17	4	2	14	34	13	77	16	23	18	32	65	38	11	8	10			
18	Fletcher S. Bassett....	Ill	Sep. 21, 1865	17	9	38	22	53	7	13	3	17	33	3	8	12	61	8	10			
19	Uriah R. Harris.....	Ind....	July 22, 1865	15	10	43	18	40	15	45	13	3	5	17	65	55	19	8	10			
20	Alex. M. Thackara.....	Penn..	July 21, 1865	16	10	37	24	22	42	66	14	34	26	13	2	2	29	8	10			
21	Newton E. Mason.....	Penn..	July 24, 1865	14	9	19	29	24	39	43	11	37	20	18	30	34	39	8	10			
22	Arthur P. Osborn.....	Ohio ..	July 31, 1865	17	11	16	5	10	1	14	61	13	21	21	75	55	40	8	10			
23	Nathaniel J. K. Patch..	Mass ..	Sep. 21, 1865	17	4	44	38	51	20	71	17	27	13	28	45	37	14	8	10			
24	Charles G. Bowman.....	Ind....	July 29, 1865	16	9	62	20	49	48	63	20	39	2	5	15	6	71	8	10			
25	Edward J. Berwind....	Penn..	July 21, 1865	17	1	2	67	24	50	4	46	1	64	22	10	51	25	8	10			
26	John B. Briggs.....	Mass ..	Sep. 30, 1865	16	6	22	37	30	58	26	37	10	35	27	3	16	59	8	10			
27	William P. Day.....	Enl.boy	July 26, 1865	16	10	25	23	8	11	33	25	25	51	40	60	43	33	8	10			
28	William F. Bulkley....	N. Y ..	July 20, 1865	17	11	67	34	66	29	55	7	46	16	14	40	26	38	8	10			
29	Elliott J. Arthur.....	Vt	Sep. 27, 1865	16	5	51	26	24	55	51	40	3	9	41	52	40	29	8	10			
30	Karl Rohrer.....	Mo....	July 22, 1865	17	6	11	32	36	51	18	47	59	37	35	36	29	1	8	10			
31	James Franklin.....	Md....	Sep. 26, 1865	16	9	9	2	1	47	27	31	27	57	22	77	34	71	8	10			
32	H. McKie Wing.....	N. Y ..	July 26, 1865	17	8	42	10	46	48	40	24	33	43	31	60	66	31	8	10			
33	Frank C. Birney.....	S.of off.	July 25, 1865	15	8	34	31	4	22	44	49	60	29	34	8	18	51	8	10			
34	Herbert Winslow.....	S.of off.	July 21, 1865	16	10	65	40	36	32	49	56	32	10	57	18	13	22	8	10			
35	John Milligan.....	Ohio ..	July 21, 1863	16	9	46	27	73	41	28	45	40	40	38	53	57	2	11	20			
36	Kossuth Niles.....	Ill	Sep. 23, 1865	16	3	61	38	51	56	16	28	56	52	30	12	19	48	8	10			
37	Chas. H. Ruschenberger	S.of off.	July 23, 1864	16	10	29	49	32	8	21	64	51	39	79	17	20	15	11	5			
38	Frederic B. Hull.....	Mich..	Sep. 30, 1865	15	4	50	43	47	31	73	23	21	27	39	64	48	73	8	10			
39	Timothy D. Bolles.....	Ark	Oct. 1, 1864	16	11	6	64	20	30	12	63	27	55	25	42	80	64	11	5			
40	Alfred B. Fowler.....	Enl.boy	Sep. 23, 1865	17	11	4	53	20	12	5	22	40	63	48	29	54	78	8	10			
41	John H. Moore.....	N. Y ..	July 31, 1865	16	5	46	54	69	52	65	37	17	34	37	33	43	67	8	10			
42	John A. Norris.....	Penn..	Sep. 28, 1865	17	9	55	45	18	66	67	29	65	38	45	42	48	11	8	10			
43	George P. Colvocoresses	S.of off.	Sep. 28, 1864	17	5	33	18	8	74	11	76	15	82	74	24	50	17	11	5			
44	Charles A. Bradbury...	Vt	July 27, 1865	16	4	34	32	13	43	69	50	54	36	51	79	46	37	8	10			
45	Richard G. Davenport..	Ga....	Sep. 29, 1864	15	8	27	42	39	25	56	70	43	47	46	73	78	19	11	5			
46	William E. B. Delahay.	Kan....	July 22, 1864	17	4	46	36	60	38	76	55	6	58	77	49	41	46	11	5			
47	George F. Wright.....	Ill	July 22, 1865	16	9	29	34	54	46	41	68	61	53	54	45	31	28	8	10			
48	William H. Driggs.....	Mich..	July 21, 1865	17	11	53	61	79	79	1	53	16	45	26	82	82	34	8	10			
49	John A. H. Nickels.....	Miss ..	Oct. 8, 1864	15	9	29	76	58	26	46	30	63	61	59	36	42	34	11	5			
50	Richard A. Breck.....	Mass ..	Sep. 30, 1865	17	1	65	51	40	67	24	56	34	54	42	57	43	26	8	10			
51	William C. Negley.....	Penn..	July 26, 1865	14	7	77	45	43	67	30	70	8	60	44	50	51	59	8	10			
52	Edward B. Barry.....	S.of off.	July 21, 1865	15	9	38	44	59	35	53	58	40	48	80	6	7	65	8	10			
53	Samuel P. Comly.....	N. J ..	July 26, 1865	16	0	79	47	68	34	58	44	77	23	46	50	10	53	8	10			
54	Wainwright Kellogg...	Penn..	Sep. 29, 1865	16	8	67	25	28	37	64	78	51	41	59	71	73	6	8	10			
55	John H. C. Coffin.....	S.of off.	July 22, 1865	15	8	76	80	34	36	80	41	37	19	49	67	39	55	8	10			
56	Charles A. Clarke.....	Iowa ..	July 21, 1864	15	11	64	65	78	64	54	62	22	67	61	15	32	26	11	5			
57	Henry C. Longnecker..	Penn..	July 30, 1864	16	9	52	75	74	70	70	41	51	44	32	54	60	43	11	5			
58	Thomas S. Phelps.....	S.of off.	July 26, 1865	16	8	38	71	60	78	7	66	25	68	70	39	58	19	8	10			
59	Nelson T. Houston.....	N. Y ..	July 28, 1865	16	0	71	57	22	62	17	34	49	81	53	25	25	56	8	10			
60	Emory H. Taunt.....	Penn..	July 24, 1865	14	3	36	63	69	28	72	60	45	62	56	28	72	57	8	10			
61	Edward O. Macfarlane.	Penn..	Oct. 3, 1864	15	6	78	41	60	59	57	73	46	46	63	69	63	4	11	5			
62	John P. Wallist.....	Md....	July 26, 1864	15	3	74	77	82d	54	38	41	79	76	58	33	21	6	11	5			
63	Henry T. Monahan....	Enl.boy	July 26, 1865	16	1	56	82	63	18	75	36	67	30	55	56	22	75	8	10			

Second Class—Continued.

Order of general merit.	NAME.	STATE.	DATE OF ADMISSION.	Age at date of admission.		ORDER OF MERIT IN—													Sea service in Practice Ships.	
				Years.	Months.	Seamanship.	Gunnery.	Naval Construction.	Infantry Tactics.	Fencing.	Mathematics.	Steam.	Astronomy and Navigation.	Mechanics.	French.	Spanish.	Conduct.	Months.	Days.	
64	Horace A. Blanchard ..	Mass ..	July 26, 1865	14	0	71	50	72	80	52	52	69	24	64	57	53	48	8	10	
65	Daniel D. V. Stuart	N. Y ..	Sep. 23, 1863	16	0	22	68	45	53	42	75	80	66	35	54	71	63	11	20	
66	Sidney H. May	N. H ..	July 28, 1864	17	2	25	47	31	64	6	81	68	78	76	73	79	32	11	5	
67	William A. Hadden.....	Penn ..	Sep. 28, 1865	17	8	57	51	54	61	74	48	56	69	61	42	62	61	8	10	
68	James W. Graydon	Iowa ..	July 22, 1865	17	6	19	62	50	59	35	59	75	56	67	60	65	69	8	10	
69	Arthur P. Nazro	Mass ..	July 22, 1865	14	7	41	72	47	72	2	34	71	42	68	22	64	76	8	10	
70	Charles E. Colahan	Penn..	July 21, 1865	15	8	67	58	40	45	29	53	69	49	49	57	59	74	8	10	
71	Dennis Mahan	S.of off.	July 21, 1865	16	3	74	70	54	63	32	70	62	71	75	20	47	43	8	10	
72	George H. Tuller§.....	Conn..	July 21, 1865	17	6	70	54	76	57	78	33	58	65	51	60	70	def.	8	10	
73	Henry T. Stockton.....	Penn..	July 22, 1865	15	11	63	74	73	83	68	68	54	75	78	71	77	15	8	10	
74	Albert G. Berry†.....	Atl'rge	July 25, 1865	16	10	46	66	82d	39	81	70	72	59	64	67	67	66	8	10	
75	William F. Low	N. H ..	July 24, 1865	16	5	80	56	33	74	82	64	73	79	43	70	68	57	8	10	
76	George A. Zabriskie...	Neb. T	Sep. 29, 1865	16	3	81	78	76	43	50	51	76	77	70	76	74	40	8	10	
77	William S. King.....	Da. T.	July 31, 1865	17	11	53	69	64	72	36	80	77	31	73	80	61	79	8	10	
78	Martin E. Hall.....	Iowa ..	Sep. 19, 1865	17	11	82	59	69	81	59	82	66	80	81	78	75	54	8	10	
79	Thomas Rodd.....	Enl.boy	July 22, 1865	16	1	58	73	65	67	20	67	82	72	72	33	28	80	8	10	
80	Richard Mitchell.....	Mass ..	July 22, 1864	15	6	58	81	67	76	61	74	64	74	66	30	75	81	11	5	
+	John S. Abbot.....	Wis...	Sep. 23, 1864	17	0	71	78	75	77	47	77	73	73	def.	48	69	52	11	5	
§	Charles H. M. Blake...	Mass ..	Sep. 24, 1863	15	0	58	60	def.	70	79	79	81	70	69	81	81	def.	9	06	

Third Class—83 Members—1868.

Order of general merit.	NAME.	STATE.	DATE OF ADMISSION.	Age at date of admission.		ORDER OF MERIT IN—														Sea service in practice ships.	
						Seamanship.	Gunnery.	Fencing.	Mathematics.	Chemistry.	History.	Rhetoric.	French.	Spanish.	Drawing.	Conduct.					
				Years.	Months.												Months.	Days.			
*1	George L. Dyer.....	Maine.....	July 26, 1866	16	10	3	7	5	3	2	3	5	2	1	17	1	5	27			
*2	Winfield S. Baker.....	Indiana...	July 30, 1866	17	5	10	19	10	1	5	13	14	30	22	4	17	5	27			
*3	Edward L. Shaffer.....	New York..	July 27, 1866	17	2	18	14	51	5	8	6	2	4	2	8	21	5	27			
*4	Benjamin M. Shaffner....	Illinois...	July 31, 1866	17	8	32	26	20	4	3	7	8	10	3	12	7	5	27			
*5	Charles Briggs.....	R. Island..	July 30, 1866	17	2	14	4	43	8	14	3	5	17	20	19	19	5	27			
6	Robert G. Peck.....	Mass.....	Sep. 24, 1866	17	2	13	8	55	9	10	7	7	11	5	23	24	5	27			
7	John Hubbard.....	Ariz. Ter..	July 26, 1866	17	2	4	1	39	10	11	18	9	23	3	45	9	5	27			
8	Henry W. Schaefer.....	Illinois....	July 23, 1866	16	5	22	13	32	7	25	16	20	19	10	28	32	5	27			
9	John W. Danenhower.....	Illinois....	Sep. 25, 1866	16	11	26	8	47	18	4	2	13	43	18	31	3	5	27			
10	Herman P. Fickbohm.....	Naval app..	July 31, 1866	17	4	27	2	36	13	32	9	22	29	16	6	43	5	27			
11	Hawley O. Rittenhouse....	N. Jersey..	July 27, 1866	15	1	36	6	42	2	22	17	4	35	24	39	26	5	27			
12	Joseph B. Murdock.....	Mass.....	July 26, 1866	15	5	5	5	79	15	1	5	3	18	10	61	37	5	27			
13	Corwin P. Rees.....	Ohio.....	July 31, 1866	17	10	42	36	29	14	24	18	18	27	27	5	38	5	27			
14	Lewis C. Heilner.....	Penn.....	July 25, 1866	17	5	12	14	44	6	9	33	22	48	26	36	60	5	27			
15	Charles P. Kunhardt.....	Penn.....	July 31, 1866	16	11	24	12	49	23	34	15	28	5	19	1	63	5	27			
16	William G. Mayer.....	Ohio.....	July 23, 1866	15	11	25	10	19	12	41	1	1	11	6	58	61	5	27			
17	Edward M. Hughes.....	At large....	July 26, 1866	16	0	16	28	69	20	23	12	16	57	46	10	58	5	27			
18	Samuel L. Graham.....	Penn.....	July 27, 1866	17	10	28	23	35	22	13	10	29	28	27	64	4	5	27			
19	Joel A. Post.....	New York..	July 23, 1866	15	6	19	56	4	24	31	45	57	1	9	7	39	5	27			
20	Harry M. Jacoby.....	Penn.....	July 27, 1866	15	11	37	10	11	40	27	42	38	41	46	16	1	5	27			
21	Henry E. Muhlenberg.....	Penn.....	Sep. 21, 1865	15	8	33	31	8	29	59	29	52	25	60	11	11	5	27			
22	Greenlief A. Merriam.....	Mass.....	July 24, 1866	16	8	23	30	27	32	53	34	17	73	64	9	35	5	27			
23	Alexander McCrackin.....	Iowa.....	July 27, 1866	16	0	15	21	24	19	26	73	39	52	53	29	48	5	27			
24	George A. Calhoun.....	Naval app..	July 31, 1866	17	0	44	16	26	39	28	26	26	15	76	2	39	5	27			
25	Lazarus L. Reamey.....	Penn.....	July 25, 1866	17	5	7	3	15	26	6	75	51	32	65	67	5	5	27			
26	James L. Carter.....	New York..	July 25, 1866	17	6	20	27	41	43	44	35	29	51	62	14	9	5	27			
27	John D. Keeler.....	Indiana....	July 23, 1866	16	7	6	16	53	44	15	20	10	32	31	62	31	5	27			
28	George B. Hoyt.....	Maine.....	July 31, 1866	16	4	20	47	83	49	7	10	11	35	22	69	8	5	27			
29	Walter S. Holliday.....	Wisconsin..	July 27, 1866	17	2	2	20	30	11	57	82	20	48	34	53	72	5	27			
30	William M. Wood.....	Indiana....	July 24, 1865	15	4	1	16	3	54	62	30	44	60	67	35	11	5	27			
31	Willie Kilburn.....	California..	Dec. 5, 1865	17	4	14	54	37	16	30	22	27	14	7	56	77	5	27			
32	William Remsen.....	New York..	July 26, 1866	17	7	31	35	23	36	18	24	31	15	37	68	55	5	27			
33	Boynton Leach.....	New York..	July 30, 1866	16	0	49	32	33	38	49	46	56	20	20	20	46	5	27			
34	George W. Holman.....	California..	July 25, 1866	17	9	43	36	46	25	17	48	32	13	7	49	68	5	27			
35	Whitmul P. Ray.....	Indiana....	Sep. 27, 1866	17	9	60	39	6	35	56	47	41	62	55	24	28	5	27			
36	John R. Spears.....	Ohio.....	July 31, 1866	16	3	40	29	45	30	19	52	58	69	43	59	11	5	27			
37	Clayton S. Richman.....	Iowa.....	July 24, 1865	16	5	10	25	7	48	75	68	64	66	58	21	23	8	21			
38	Jacob J. Hunker.....	Ohio.....	July 30, 1866	16	11	34	48	34	57	63	36	42	48	43	22	59	5	27			
39	Henry Harris.....	Illinois....	Aug. 1, 1866	16	7	69	22	72	21	16	28	22	56	39	27	83	5	27			
40	John B. Collins.....	Louisiana..	July 30, 1866	16	6	8	48	71	28	45	52	77	25	57	57	65	5	27			
41	Hugo Osterhaus.....	Missouri...	Sep. 22, 1865	14	3	39	59	13	17	67	52	76	8	14	34	80	5	27			
42	Charles H. Lyman.....	Ohio.....	July 28, 1866	17	3	52	65	50	69	33	23	12	15	14	43	48	5	27			
43	Miers F. Wright.....	Penn.....	Oct. 1, 1865	15	11	68	48	74	31	20	14	14	43	31	74	71	5	27			
44	Hanson R. Tyler.....	Vermont....	July 27, 1866	15	2	45	61	54	52	52	39	18	35	54	41	48	5	27			
45	Freeman H. Crosby.....	New York..	July 30, 1866	17	2	59	45	48	42	46	63	46	66	31	37	43	5	27			
46	James M. Gore.....	Son of off..	July 25, 1866	16	11	46	24	52	66	12	25	42	60	45	42	66	5	27			
47	Landon P. Jouett.....	Kentucky..	July 31, 1866	16	6	38	45	64	27	36	62	36	65	34	76	67	5	27			
48	William P. Conway.....	Kentucky..	Oct. 1, 1866	17	2	58	38	31	47	35	84	70	69	52	38	28	5	27			
49	Thomas C. Spencer.....	Son of off..	July 24, 1866	17	4	54	64	21	57	40	43	67	71	74	44	5	5	27			
50	John P. J. Augur.....	Son of off..	Sep. 26, 1866	14	5	61	70	14	46	47	57	61	23	27	52	56	5	27			
51	James H. Sawyers.....	Kentucky..	Sep. 24, 1866	17	5	35	33	28	72	39	36	70	81	74	55	11	5	27			
52	Charles F. Emmerich.....	Dist. Col..	Sep. 26, 1866	17	8	47	40	12	64	29	39	63	77	81	47	41	5	27			
53	Wisner G. Scott.....	New York..	July 22, 1865	17	6	48	58	56	78	68	61	34	54	51	18	41	5	27			
54	Joseph H. Utley.....	Illinois....	Sep. 22, 1865	17	7	29	67	22	76	42	65	59	77	72	15	53	8	21			
55	Henry R. Peningtonf.....	Delaware....	Oct. 1, 1866	17	2	75	77	65	33	83d	77	54	21	42	88	16	5	27			
56	Hiram Hancock.....	Penn.....	July 23, 1866	16	5	62	66	62	60	37	20	40	43	40	75	30	5	27			
57	Henry L. Green.....	New York..	July 31, 1866	17	4	56	53	38	45	73	48	46	3	13	48	78	5	27			
58	Ferdinand H. Gentsch.....	Ohio.....	July 22, 1865	17	4	55	55	66	80	65	41	44	75	73	30	19	5	27			
59	Nathan Sargent.....	Mont. Ter..	July 23, 1866	16	8	30	71	82	37	64	43	77	6	17	60	78	5	27			
60	Charles E. Vreeland.....	Naval app..	July 31, 1866	14	4	53	79	77	55	51	65	64	30	25	32	64	5	27			
61	James H. Bull.....	Penn.....	July 25, 1866	14	1	63	80	81	56	71	36	33	22	46	72	25	5	27			
62	Haile C. Nye.....	Ohio.....	July 28, 1866	15	9	51	42	61	34	60	58	25	62	60	77	70	5	27			
63	George W. Mentz.....	N. Jersey..	Sep. 26, 1866	16	2	66	72	9	41	69	77	46	46	40	79	43	5	27			
64	Anson B. Milliman.....	Naval app..	July 31, 1866	17	7	63	51	17	58	61	80	80	47	50	40	34	5	27			
65	Marcus D. Hyde.....	Wash. Ter..	Nov. 25, 1865	16	6	40	57	25	67	43	67	54	68	55	3	75	8	21			

Third Class—Continued.

Order of general merit.	NAME.	STATE.	DATE OF ADMISSION.	Age at date of admission.		ORDER OF MERIT IN—													Sea service in practice ships.	
				Years.	Months.	Seamanship.	Gunnery.	Fencing.	Mathematics.	Chemistry.	History.	Rhetoric.	French.	Spanish.	Drawing.	Conduct.				
																	Months.	Days.		
66	Martial C. Dimock.....	Naval app.	July 31, 1866	16	8	9	34	60	75	58	69	68	40	58	26	75	5	27		
67	Theodoric Porter†.....	Son of off..	Sep. 23, 1865	16	10	72	72	1	81	83 <i>d</i>	76	82	9	38	25	27	8	21		
68	John B. Milton.....	Kentucky..	July 30, 1866	17	9	74	43	58	53	55	50	59	52	62	70	48	5	27		
69	Frank L. Ludlow.....	New York..	July 24, 1866	16	1	57	40	59	50	54	70	72	76	66	54	63	5	27		
70	Timothy G. C. Salter	Naval app.	Sep. 24, 1866	15	8	67	60	16	62	78	79	81	57	70	78	18	5	27		
71	Frank Ellery, jr.†.....	Son of off..	Sep. 25, 1866	16	6	83 <i>d</i>	75	18	59	50	71	66	73	79	63	54	5	27		
72	James P. Norton.....	Conn.....	July 26, 1866	15	10	50	52	76	71	38	73	72	57	68	50	69	5	27		
73	Colin McDonald	Ohio	July 24, 1866	17	5	70	43	67	68	70	61	68	62	69	81	36	5	27		
74	William H. Van de Carr...	New York..	July 26, 1865	15	1	76	78	80	63	66	83	46	80	77	73	33	8	21		
75	Albert C. Dillingham	Penn.....	July 21, 1865	17	2	71	63	2	70	77	27	50	72	77	65	82	8	21		
76	Francis Winslow.....	Son of off..	July 22, 1865	14	1	73	76	73	73	76	59	72	79	80	51	81	8	21		
77	Charles H. Brahe	Ariza. Ter.	July 25, 1866	15	11	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	5	27		
+	Joseph H. Fraunces.....	Penn.....	July 26, 1866	16	9	<i>def</i>	69	68	61	48	71	77	34	30	33	73	5	27		
+	Walter S. French.....	Maine.....	July 27, 1866	14	7	<i>def</i>	87	78	77	74	86	72	41	46	46	70	5	27		
+	Gustavus C. Hanus	Wisconsin..	July 26, 1865	17	3	<i>def</i>	62	63	65	21	32	34	35	34	71	21	8	21		
+	Montgomery Wilcox.....	Dak. Ter..	July 26, 1865	14	6	<i>def</i>	74	57	74	72	52	37	6	10	13	56	8	21		
+	Downs L. Wilson.....	At large...	July 27, 1866	17	10	<i>def</i>	81	70	79	<i>def</i>	30	52	35	70	80	15	8	25		
+	Henry H. Kirkpatrick.....	Indiana...	Sep. 22, 1866	17	2	63	68	40	<i>def</i>	<i>def</i>	<i>def</i>	51	61	<i>a</i>	<i>a</i>	66	52	3	02	
Q	Henry S. Williams.....	New York..	July 30, 1866	17	7	<i>def</i>	<i>def</i>	<i>def</i>	<i>def</i>	<i>def</i>	<i>def</i>	<i>def</i>	<i>def</i>	<i>def</i>	<i>def</i>	47	3	05		

a—Absent from examination by reason of sickness.*r*—Reinstated after examination was concluded.

Fourth Class—86 Members—1868.

Order of general merit.	NAME.	STATE.	DATE OF ADMISSION.	Age at date of admission.		ORDER OF MERIT IN—								Sea service in practice ships.	
						Seamanship.	Mathematics.	Grammar.	Geography.	History.	Drawing.	Conduct.			
				Years.	Months.								Months.	Days.	
*1	Charles Terrel.....	Kentucky..	Sep. 25, 1867	16	0	6	2	8	10	8	3	5	2	14	
*2	Sidney A. Staunton.....	West Va...	Sep. 20, 1867	17	0	7	1	2	3	3	36	7	2	14	
*3	William M. Irwin.....	Ohio.....	June 28, 1867	17	7	14	8	4	2	2	9	4	2	14	
*4	Aaron Ward.....	Penn.....	Sep. 26, 1867	15	11	5	6	1	1	1	52	12	2	14	
*5	Benj. C. Tillinghast.....	Naval app.	July 31, 1866	16	5	4	17	7	4	12	5	47	5	27	
6	Perrin Busbee.....	At large...	Sep. 30, 1867	17	7	59	12	3	5	5	29	15	2	14	
7	William A. Siter.....	Illinios...	June 30, 1867	17	7	39	4	10	9	7	32	57	2	14	
8	Carlos G. Calkins.....	Ohio.....	June 20, 1867	17	3	20	5	11	19	16	68	11	2	14	
9	Frank W. Nabor.....	Ohio.....	Sep. 20, 1867	17	7	79	11	9	12	26	8	3	2	14	
10	Chauncey Thomas.....	Penn.....	Sep. 25, 1867	17	4	22	22	15	14	16	39	19	2	14	
11	Julius C. Freeman.....	Illinois...	Oct. 4, 1866	17	3	29	13	5	23	38	20	56	5	27	
12	Ben. B. Scott.....	Iowa.....	June 28, 1867	15	10	38	9	19	15	14	65	36	2	14	
13	William P. Clason.....	R. Island..	July 27, 1866	16	9	20	26	22	6	6	6	77	5	27	
14	William H. E. Masser.....	Penn.....	Oct. 1, 1866	17	4	36	3	38	8	36	13	70	5	27	
15	Charles W. Bartlett.....	Mass.....	June 20, 1867	16	10	16	14	17	47	21	37	8	2	14	
16	John E. Roller.....	Naval app.	June 20, 1867	15	8	9	33	22	31	13	11	30	2	14	
17	Eugene C. Tittman.....	Missouri...	Sep. 23, 1867	14	11	62	16	16	44	28	18	6	2	14	
18	Albert A. Crandall.....	Minn.....	June 29, 1867	17	3	33	31	25	22	8	40	44	2	14	
19	Frederic H. Lefavor.....	Ohio.....	July 27, 1866	17	7	24	27	27	18	44	1	62	5	27	
20	Charles A. Foster.....	Minn.....	Aug. 1, 1866	16	6	34	36	25	16	19	26	38	5	27	
21	Albert J. Dabney.....	Kentucky..	Sep. 30, 1867	17	7	66	25	11	20	4	82	12	2	14	
22	Joel A. Barber.....	Wisconsin..	June 20, 1867	17	4	64	10	5	27	24	45	73	2	14	
23	Frank B. Veazie.....	Mass.....	July 23, 1866	15	8	8	23	30	56	24	16	60	5	27	
24	Henry McCrea.....	Indiana...	July 24, 1866	14	8	10	18	20	38	49	35	59	5	27	
25	Gaspar C. Barnette.....	Michigan..	July 23, 1866	16	6	3	42	29	32	16	2	78	5	27	
26	George L. Selden.....	Conn.....	July 27, 1866	17	10	25	32	17	21	30	24	75	5	27	
27	Thomas C. Wood.....	New York..	July 30, 1866	16	2	16	15	44	36	44	15	70	5	27	
28	Charles W. Brown.....	Naval app.	June 20, 1867	17	5	15	44	20	17	11	49	69	2	14	
29	George A. Vail.....	New York..	Sep. 26, 1867	16	0	45	20	63	11	52	14	31	2	14	
30	James C. Cresap.....	Ohio.....	June 22, 1867	17	6	53	7	35	69	36	27	53	2	14	
31	Philip Arnold.....	Kentucky..	Aug. 1, 1866	15	11	25	45	52	26	32	10	49	5	27	
32	Francis E. Greene.....	Indiana...	Sep. 24, 1867	14	2	61	35	13	28	32	74	26	2	14	
33	William A. Marshall.....	Penn.....	June 26, 1867	17	8	10	51	60	41	48	4	22	2	14	
34	Samuel Seabury.....	Naval app.	June 20, 1867	17	6	1	78	70	35	14	7	16	2	14	
35	Joseph L. Hunsicker.....	Penn.....	June 24, 1867	16	3	13	28	31	43	64	69	32	2	14	
36	Edward R. Norton.....	Illinois...	July 30, 1866	17	4	10	50	34	40	46	59	10	5	27	
37	Howard S. Waring.....	Naval app.	June 20, 1867	17	5	2	64	31	29	23	67	34	2	14	
38	Horace P. McIntosh.....	Indiana...	June 27, 1867	15	5	32	53	33	24	29	56	46	2	14	
39	Robert D. Stevens.....	New York..	June 27, 1867	15	7	70	46	28	37	20	41	51	2	14	
40	Henry H. Barroll.....	Missouri...	Sep. 27, 1867	17	4	78	30	35	39	30	51	48	2	14	
41	George A. Sanderson.....	Ohio.....	Sep. 26, 1866	15	4	36	68	40	7	38	30	40	5	27	
42	Charles D. Galloway.....	Maryland..	Sep. 22, 1866	16	1	28	43	50	34	35	19	80	5	27	
43	William P. Elliott.....	At large...	Sep. 25, 1867	16	0	60	37	24	13	32	63	82	2	14	
44	Harrington L. Gosling.....	Tenn.....	Sep. 25, 1866	15	3	44	65	14	52	21	17	63	5	27	
45	Walter Fraser.....	Son of off..	July 27, 1866	17	0	27	55	49	25	59	43	9	5	27	
46	James M. Wight.....	Michigan..	June 29, 1867	15	10	42	40	43	65	49	12	49	2	14	
47	Henry L. Heiskell.....	Maryland..	Sep. 26, 1866	15	9	48	29	35	60	27	55	81	5	27	
48	Christopher Bruns.....	New York..	June 28, 1867	15	0	34	38	63	59	67	25	27	2	14	
49	John T. Edson.....	At large...	June 25, 1867	17	4	48	41	56	51	70	23	29	2	14	
50	George D. McCarty.....	At large...	Oct. 3, 1866	17	0	84	24	63	53	51	21	66	5	27	
51	Dwight L. Worsley.....	Naval app.	June 20, 1867	17	2	18	47	38	46	64	64	65	2	14	
52	Frank Guertin.....	Wisconsin..	June 28, 1867	17	6	50	66	47	30	40	76	1	2	14	
53	Alphonso H. Cobb.....	Michigan..	Sep. 21, 1867	17	5	63	39	56	81	56	31	18	2	14	
54	William E. Sewell.....	New York..	Sep. 25, 1867	15	10	75	19	53	42	46	84	38	2	14	
55	Edward F. Qualtrough.....	New York..	Sep. 20, 1867	16	10	53	34	71	86	72	28	20	2	14	
56	David Whipple.....	Son of off..	Sep. 25, 1866	16	2	30	60	48	57	54	38	54	5	27	
57	John Downes.....	At large...	June 20, 1867	15	4	41	56	40	50	68	58	25	2	14	
58	William T. B. O'Reilly.....	At large...	June 20, 1867	15	5	69	49	40	78	55	53	14	2	14	
59	Jeremiah C. Burnett.....	Indiana...	Sep. 20, 1867	16	2	81	21	45	83	58	61	64	2	14	
60	William S. Long.....	Son of off..	July 25, 1866	15	6	31	52	63	64	73	33	33	5	27	
61	Thomas S. Plunket.....	At large...	June 20, 1867	17	3	50	67	63	71	41	44	24	2	14	
62	Zachary T. Babcock.....	New York..	June 26, 1867	17	4	56	59	73	58	59	47	17	2	14	
63	Frank S. Hotchkin.....	New York..	June 27, 1867	14	3	56	54	51	45	71	72	52	2	14	
64	David S. Little.....	California..	Sep. 24, 1866	17	3	39	69	78	55	77	22	37	5	27	
65	Franklin L. Greene.....	Ohio.....	June 25, 1867	16	10	23	76	77	70	59	54	22	2	14	

Fourth Class—Continued.

Order of general merit.	NAME.	STATE.	DATE OF ADMISSION.	Age at date of admission.		ORDER OF MERIT IN—							Sea service in practice ships.	
				Years.	Months.	Seamanship.	Mathematics.	Grammar.	Geography.	History.	Drawing.	Conduct.		
													Months.	Days.
66	William H. Slack.....	At large, ..	Sep. 23, 1867	17	5	65	72	68	72	52	46	43	2	14
67	Levi Fox.....	Indiana ...	June 27, 1867	16	10	66	48	75	79	77	48	58	2	14
68	Thomas D. Carnahan†....	Penn.....	June 20, 1867	16	9	86 ^d	62	46	62	42	77	76	2	14
69	Robert J. Anderton.....	New York..	Sep. 24, 1867	16	11	83	61	69	48	75	73	41	2	14
70	Albert Mertz.....	Wisconsin..	June 26, 1867	16	3	68	75	74	73	66	42	21	2	14
71	Julian H. Brown.....	Maine.....	Sep. 26, 1867	17	10	42	57	75	80	69	57	74	2	14
72	Thomas C. Denny.....	Naval app..	June 20, 1867	16	1	56	70	56	67	63	80	68	2	14
73	Asher C. Baker.....	Iowa.....	Sep. 25, 1867	16	9	72	63	82	54	73	66	60	2	14
74	William C. Babcock.....	Kansas....	Sep. 23, 1867	14	0	75	79	71	63	10	86	55	2	14
75	George W. Cory.....	Illinois....	June 21, 1867	16	10	80	71	62	74	62	78	72	2	14
	Robert S. Graham.....	N. Jersey..	Sep. 20, 1867	14	11	71	def.	56	90	57	50	2	2	14
	Walter T. Livingston.....	Naval app..	June 20, 1867	17	11	46	def.	80	84	80	60	41	2	14
	Milton K. Schwenk.....	Col. Ter...	Sep. 22, 1866	16	4	46	74	78	66	def.	34	27	5	27
	Germain B. Vandervoort..	Naval app..	Sep. 26, 1867	17	3	19	def.	53	49	43	75	79	2	14
	William M. Harper.....	Ohio.....	Sep. 20, 1867	17	8	73	def.	84	89	def.	62	44	0	00
	George W. Heistand.....	Ohio.....	June 28, 1867	17	2	74	def.	60	75	76	71	35	0	00
	Albert T. Jenkins.....	Maryland..	Sep. 20, 1867	17	6	def.	def.	def.	85	def.	79	def.	0	00
	Joseph C. Montgomery....	Naval app..	June 20, 1867	17	3	50	58	55	92	79	70	def.	0	00
	Frank E. Sawyer.....	Mass.....	Sep. 20, 1867	16	9	75	def.	83	77	def.	81	def.	0	00
	Harry C. Singer.....	At large...	Sep. 26, 1867	15	7	55	def.	def.	82	def.	def.	def.	0	00
	Robert C. Van Horn.....	Missouri...	Sep. 20, 1867	14	1	82	def.	def.	76	def.	def.	def.	0	00

SUMMARY.

Academic Year 1867 and 1868—concluded June 10, 1868.

First, or Graduating Class.....	81 members.
Second Class.....	82 members.
Third Class.....	84 members.
Fourth Class.....	86 members.
Total	<u>333</u> members.

Alphabetical List of Midshipmen, forty-nine (49) in number, admitted in June and September, forming the Fourth Class of 1868-'69.

Name.	State.	Date of admission.	AGE AT DATE OF ADMISSION.	
			Years.	Months.
Daniel F. Baker.....	At large.....	June 25, 1868	14	6
William L. Baldwin.....	New York.....	Sep. 22, 1868	15	5
Abel B. Brown.....	Naval Apprentice.....	Sep. 22, 1868	17	1
Joel H. Burns.....	Ohio.....	Sep. 23, 1868	16	7
Vincendon L. Cottman.....	New York.....	Sep. 21, 1868	16	7
Charles H. Crosswait.....	Indiana.....	June 24, 1868	16	2
Ion G. Dieterieh.....	Illinois.....	Sep. 22, 1868	17	6
Thomas F. Dixon.....	At large.....	Sep. 21, 1868	16	3
Alfred V. Dockery.....	North Carolina.....	Sep. 23, 1868	17	6
Robert H. Fletcher.....	At large.....	June 24, 1868	16	11
Charles E. Fox.....	At large.....	June 23, 1868	16	9
Albert T. Freeman.....	New Jersey.....	Sep. 24, 1868	17	1
John C. Fremont, jr.....	At large.....	June 24, 1868	17	2
Rogers H. Galt.....	At large.....	June 20, 1868	17	10
William H. Garrett.....	Tennessee.....	Sep. 24, 1868	17	3
William C. Heacock.....	New York.....	Sep. 22, 1868	17	6
George W. Hey.....	New York.....	Sep. 29, 1868	17	6
Nathaniel T. James.....	At large.....	June 27, 1868	15	11
Delmar R. Keeler.....	Naval Apprentice.....	June 22, 1868	17	8
Alexander Kirkland.....	Maryland.....	Sep. 22, 1868	14	5
Oren E. Lasher.....	New York.....	Sep. 26, 1868	14	11
Edward Lloyd.....	South Carolina.....	Sep. 26, 1868	16	0
Oswin W. Lowry.....	Ohio.....	June 23, 1868	16	4
Clinton H. Lyeth.....	West Virginia.....	June 25, 1868	17	2
Murray D. McConnell.....	Illinois.....	June 30, 1868	15	7
Robert H. McLean.....	Naval Apprentice.....	June 22, 1868	17	7
Horace W. Mann.....	Alabama.....	Sep. 28, 1868	15	5
James S. Manley.....	Maine.....	Sep. 29, 1868	14	5
Jacob Medary.....	At large.....	June 25, 1868	15	7
Charles R. Miles.....	Utah Territory.....	June 27, 1868	16	8
Charles T. Mitchell.....	Tennessee.....	Sep. 25, 1868	14	2
Jacob K. Nagle.....	Naval Apprentice.....	Sep. 22, 1868	17	8
John Y. Oliver.....	Arkansas.....	Sep. 26, 1868	14	9
William L. Pitcher.....	At large.....	June 29, 1868	15	6
William Polmyer.....	At large.....	June 20, 1868	17	6
Frank H. Powers.....	Naval Apprentice.....	June 22, 1868	17	0
Benjamin F. Rinehart.....	Pennsylvania.....	Sep. 23, 1868	17	8
Jesse M. Roper.....	Missouri.....	June 23, 1868	16	7
William D. Rosenerantz.....	New Jersey.....	June 24, 1868	16	3
Frank E. Sawyer.....	Massachusetts.....	Sep. 22, 1868	17	0
William M. Slough.....	New Mexico Territory.....	Sep. 26, 1868	14	1
Arthur C. Smith.....	New York.....	June 27, 1868	17	5
William H. H. Sutherland.....	Naval Apprentice.....	June 22, 1868	15	11
Charles A. Thompson.....	Louisiana.....	Sep. 29, 1868	17	11
Frederic Tyler.....	Michigan.....	June 20, 1868	16	1
Lemuel Van Epps.....	Naval Apprentice.....	June 22, 1868	16	10
Ten Eyck De Witt Veeder.....	New York.....	Sep. 24, 1868	14	0
James H. Winlock.....	Kentucky.....	Sep. 21, 1868	16	5
George T. Winston.....	North Carolina.....	Sep. 30, 1868	15	11

SUMMARY.

Academic Year 1868-'69—begun October 1, 1868.

First Class	80 members.
Second Class	78 members.
Third Class	81 members.
Fourth Class, (appointments of 1868, and transfers from 1867).....	53 members.
Total.....	<u>292</u> members.

CALENDAR—1868-'69.

1868.

June 20.—Examination of candidates for admission began.....	Saturday.
June 30.—Examination of candidates concluded	Tuesday.
Sep. 21.—Examination of candidates for admission began.....	Monday.
Sep. 30.—Examination of candidates concluded	Wednesday.
Oct. 1.—Winter term began	Thursday.
Nov. 26.—Thanksgiving ; studies and exercises suspended.....	Thursday.
Dec. 25.—Christmas ; studies and exercises suspended.....	Friday.

1869.

Jan. 1.—New Year ; studies and exercises suspended.....	Friday.
Jan. 15.—Semi-annual examination begins.....	Friday.
Feb. 15.—Semi-annual examination and winter term ends.....	Monday.
Feb. 16.—Summer term begins.....	Tuesday.
Feb. 22.—Studies and exercises suspended.....	Monday.
May 20.—Annual examination begins.....	Thursday.
June 10.—Annual examination and summer term ends	Thursday.

PRACTICE CRUISE—1869.

1869-'70.

June 21.—Examination of candidates for admission begins	Monday.
June 30.—Examination of candidates for admission ends	Wednesday.
Sep. 20.—Examination of candidates for admission begins.....	Monday.
Sep. 30.—Examination of candidates for admission ends	Thursday.
Oct. 1.—Winter term begins.....	Friday.

COURSE OF INSTRUCTION.

The studies which shall be pursued and the instruction which shall be given at the Naval Academy are comprised under the following departments and branches:

FIRST DEPARTMENT—PRACTICAL SEAMANSHIP, NAVAL GUNNERY, AND NAVAL AND INFANTRY TACTICS.

First branch—Practical Seamanship.—Mode of constructing, docking and undocking vessels, and of heaving them down for examination and repair; preparations for, and stowage of, ballast, water, provisions, ammunition, sails, and other stores; getting on board and fitting in place masts, yards, rigging, sails, armament, boats, and all other articles of equipment, and arrangements for removing the same when a ship is to be dismantled; berthing the crew, and stationing the ship's company for various duties in working ship; unmooring ship; getting under way; anchoring and mooring; mode of using springs in the different cases to which they may be advantageously applied; keeping a ship from fouling her anchor; clearing hawse; practical use of the lead and of the helm; steering, tacking, wearing; making and shortening sail in different kinds of weather, and in different situations; backing and filling in a tideway; warping; heaving to and preserving relative position with other vessels when lying-to; chasing to windward and to leeward; closing with other vessels soonest, or avoiding them for the greatest length of time; towing one or more vessels, under all circumstances of weather, when towing is practicable; management of vessels and boats to save men who have fallen overboard, or to rescue persons from vessels at sea. when the sea is rough and dangerous; boarding vessels at sea; examination of ship's papers; landing in a heavy surf; watering and provisioning from an open beach; management of a vessel on her beam ends; also, when one or more masts are lost in a gale or in action; and when rudder is lost, or in danger from leaks in a gale at sea, or in imminent danger of soon foundering, or on fire at sea or in port; rules for avoiding collisions; rules of the road, and lights to be carried by vessels, as established by act of Congress.

Second branch—Theory and Practice of Gunnery—Practical Naval Gunnery.—The nomenclature of different parts of ship's guns, and of the different carriages which are used in the navy; and also the several uses, and the names of all articles belonging to or used with guns and carriages in action; component parts of gunpowder and mode of manufacture, and different means by which its strength and other qualities are or may be ascertained; mode of inspecting and proving guns, shot and shells, for their reception from the makers; windage manner of loading, fuizing, and boxing shells, and of unloading them; testing quality and regulating length of fuzes; arrangement of ship's magazines, shell and shot rooms; dimensions of cartridge-bags, and mode of making them; weight of charges of powder for different calibres and distances; manner of fitting and using locks and tangent and dispart sights; necessity for guarding powder, shells, fuzes, and all articles of which gunpowder forms a part, from moisture as well as from fire; preparation of a ship for action; stations and duties of men at guns of different calibres, in the different divisions, when preparing for quarters or action; exercise of the guns, and all the duties of those stationed at them in action; modes of ascertaining distances from vessels and other objects at sea; advantages of direct and of ricochet firing under different circumstances; ranges of different projectiles from different calibres and classes of guns; different modes of taking guns on board and sending them from vessels; of mounting and dismounting and transporting them; shifting carriages, breechings, and trucks; securing guns in heavy gales; managing and securing a gun that has got loose from breeching and tackles; means of gaining greater safe elevation and depression than carriages ordinarily afford; injurious effects of double shotting upon the recoil and safety of the gun, and upon the projectiles, as to the accuracy of their direction, and the extent of

their range for penetration; arrangements for boarding and repelling boarders; different calls and signals used in action.

Furthermore, the use of boat and field guns; their nomenclature, weight, calibres, character, and construction, including the carriages with which they are used for boat and shore service; preparation of boats for their use; exercise when used in boats and when on shore; embarking them in boats from vessels; equipment for service against merchantmen, boats, or for shore service; mode of landing and embarking from the shore; construction and preparation, for immediate use, of the shrapnell and other shells, and of grape, and the regulation of the length of fuzes; adaptation of the different kinds of projectile for service, according to distance, cover, and the character of the objects of attack; returning armament and equipments to the vessel, and disposition to be made of them on so doing.

Theory of Gunnery.—Review of laws of motion, of projectiles in vacuo, and in the atmosphere; initial, remaining, and final velocities, and the methods of determining their values; the effects on them by variations of charge, windage, and weight of projectiles; forces of deviation, arising from the motion of rotation and eccentricity of projectiles, from inclination of the axis of the trunnions, and from other causes; examination of the several systems or modes of pointing; tangent sights, and determination of their values; penetration and shock of projectiles, when used against wood, earth, or stone, and with direct and ricochet fire; recoil, and how affected by preponderance, and position of trunnions in relation to axis of the gun.

Third branch—Naval Tactics.—The different orders of steaming and sailing fleets, divisions, and squadrons, to be observed for battle, and for other purposes; modes of forming such orders; of changing from one order to another; of reforming orders when disturbed by changes of wind; of interchanging and changing the position of different squadrons or divisions forming parts of a fleet; advantages of the different prescribed orders for general or special service; the leading objects to be kept in view in the arrangement of vessels of different strength or force for lines of battle, and in determining upon the manner of making or receiving an attack at sea and at anchor; examination of the best accounts of fleet actions; consideration of the advantages or defects of the plans of attack and defence, and of the execution of the details by the commanders of fleets, divisions, squadrons, and vessels; mode of communication by signals, embracing the naval code, the army code, and the commercial code.

Fourth branch—Infantry Tactics.—Organization and formation of squad, company, and battalion; facing and wheeling; marching in line and by flank, and filing; manual of small arms; firing; charging; forming column in mass at half and at full distance, and reforming into line; extension and closing of column; column of route; reducing and increasing front; passage of defiles; advancing and retreating by flank, centre, and in line; passage of obstacles; changes of front; forming and reducing square; exercise as skirmishers.

Fifth branch—Naval Artillery.—School of the piece and school of the battery.

Sixth branch—The Art of Defence.—Fencing, small and broad sword; boxing and swimming.

Seventh branch—Naval Construction.—Elements of naval architecture.

SECOND DEPARTMENT—MATHEMATICS.

First branch—A Review of Arithmetic.—The principles and practice of operations in whole numbers and in vulgar and decimal fractions; proportions; computation of percentage and interest; involution and evolution of numbers.

Algebra.—Fundamental operations; reduction and solution of equations of the first and second degrees; reduction and transformation of fractional and surd quantities; proportions and progressions; summation of series; nature and construction of logarithms.

Second Branch—Geometry.—Plane and solid.

Third branch—Trigonometry.—Analytical investigation of trigonometrical formulas, and their application to the solution of all the cases in plane and spherical trigonometry; the construction and use of trigonometrical tables.

Fourth branch—Application of Algebra and Trigonometry to the mensuration of planes and solids.

Fifth branch—Descriptive Geometry.—(The graphic illustration and solution of problems in solid geometry, and the application of this method, particularly to) the projections of the sphere.

Sixth branch—Analytical Geometry.—Construction of algebraic expressions; solution of determinate problems; equations of the right line, plane and conic sections; [discussion of the general equations of the second degree, involving two or three variables; determination of loci; principal problems relating to the cylinder, cone, sphere, and spheroids.]

Seventh branch—[Differential and Integral Calculus.]—Its principles and its application to maxima and minima, and the simpler problems relating to curves.]

THIRD DEPARTMENT—STEAM ENGINERY.

First branch—Mechanical Drawing.—Application of right-line drawing and descriptive geometry to the making of drawings of marine steam machinery after construction.

Second branch—Heat.—Application of heat to steam, and the operation and conservation of marine engines and boilers.

Third branch—Steam.—Physical properties of water; method of generating steam; boiling points of fresh and sea water; measure of steam by atmospheres and mercurial column; steam distinguished from other elastic fluids; pressure, density, and temperature of steam; superheated steam; forms of instruments used to determine temperature and pressure of steam.

Fourth branch—Marine Boilers.—General description of marine boilers, their peculiarities, details of construction, advantages and disadvantages of each type, methods of operating; appurtenances and instruments used in connection with marine boilers to determine their efficiency; means used for their proper care and preservation; economy of fuel and prevention of smoke.

Fifth branch—Marine Engines.—General description of marine steam engines now in use—condensing and non-condensing; elementary parts of the steam engine; engines used for marine propulsion in the navy—advantages and disadvantages of each; detail parts of a marine engine, their use and conservation; different types of paddle wheels and screw propellers; comparative efficiency of each for naval purposes; method of hoisting and coupling the screw and paddle wheel—radial and feathering; duties to steam machinery when at sea and in port; repairing damages during and after an action; precautions against fire and spontaneous combustion, bad weather, and probability of an engagement; routine duties of the fire and engine rooms when under steam; coal bunkers and coaling ship; hints regarding selection of coal on foreign stations.

Sixth branch—Practical Exercises.—Practical exercises; operating marine engines and boilers under steam; use of indicator and interpretation of its diagrams; practical observation of the methods of adjustment, and means used to insure the safety and preservation of marine machinery.

Seventh branch—Chemistry.—The practical application of chemistry to the combustion of fuel; corrosion of the metals; analysis of different kinds of fuel, sea water, boiler scale, lubricating matter, and illuminating oils.

This branch will be taught by lectures and experiment, when marine boilers and engines are under discussion.

FOURTH DEPARTMENT—ASTRONOMY, NAVIGATION, AND SURVEYING.

First branch—Astronomy.—Descriptive and physical astronomy; description of the solar system; figure and magnitude of the earth, its motions and consequent changes of seasons; length of day and night; trade and periodical winds; nature and effects of parallax, refraction, dip of the horizon, precession, nutation, and aberration; theory of gravitation; Kepler's laws; explanation of the apparent motions of the sun, moon, planets, and comets, and the principles upon which the determination of their orbits depends; the moon's motions and phases; general theory of the tides; theory of eclipses; general description of the stars, and their distribution in space; measures of time; equation of time.

Second branch—Practical Astronomy.—Including the use of astronomical instruments in determining the positions of celestial objects, and terrestrial latitudes and longitudes; optical principles involved in the construction of astronomical instruments, and in the theory of astronomical refraction. [Calculation of eclipses and occultations.]

Third branch—Navigation.—Sailing by compass; sailing on a great circle; various methods for finding a ship's place at sea; construction and use of charts, including topographical and hydrographic drawing; principles and use of the sextant and circle of reflection, and application of the glass prism to these instruments; the artificial horizon; the azimuth compass; methods of ascertaining the deviation of the compass, produced by local attraction on ship-board; the log, and other instruments for determining a ship's rate of sailing; sounding instruments; nature and use of the Nautical Almanac; relations of time under different meridians; computation of altitudes and azimuths of celestial objects; finding, by means of amplitudes and azimuths, the variations of the compass; finding the latitude by meridian observations of the sun, moon, planets, and stars; by observations near the meridian, by single altitudes at a given time, and by two altitudes of the same or different objects; finding the longitude by the chronometer; by lunar distances and by altitudes of the moon; Sumner's method of finding a line of position, and determining the ship's place by two such lines; rating a chronometer on shore by single altitudes, and by equal altitudes; and finding its error at sea by a series of lunar observations. Theory of the various problems of navigation and nautical astronomy, and the application of spherical trigonometry to their solution; [consideration of the true figure of the earth, and the corrections in nautical problems depending upon it.]

Fourth branch—Surveying.—Its principles and practice; measurement of heights and distances; levelling; trigonometrical surveying; hydrographical surveying; direct measurement of a base line; measurement by sound; running lines of soundings; reduction for tides; survey of a harbor or river; fixing the position of shoals, etc.; running survey of a coast; [geodetic corrections in extended surveys;] application of astronomical observations for azimuth, latitude, and longitude.

FIFTH DEPARTMENT—NATURAL AND EXPERIMENTAL PHILOSOPHY.

First branch—Mechanics of Solids.—Forces and equilibrium; composition and resolution of forces; uniform and varied motion; motion of projectiles in vacuo, and in a resisting medium; centre of gravity; equilibrium of a system of bodies; motion of translation of a body or system; motion and equilibrium about an axis; central forces; falling bodies; pendulum and ballistic pendulum; laws of the planetary motions; effect of friction and adhesion, and of stiffness of cordage; mechanical powers; collision of bodies.

Second branch—Mechanics of Liquids.—Mechanical properties of fluids; laws of equilibrium and pressure; flotation of bodies; stability and oscillation of floating bodies; specific gravity; [motion of liquids.]

Third branch—Mechanics of Aëriform Fluids.—Air-pump; weight and pressure of the atmosphere; laws of pressure; density and temperature; barometer; pumps; syphon; motion of elastic fluids.

Fourth branch—Acoustics.—Theory of waves in general; velocity of sound in different media; [molecular displacement; interference of waves;] reflection and echo; speaking and hearing trumpets; [vibrations of strings, of columns of air, and of plates and bells; communication of vibrations.]

Fifth branch—Optics.—General properties of light; catoptrics; dioptrics; chromatics; vision; optical instruments; [physical optics.]

Sixth branch—Electricity.—Statical electricity; voltaic electricity; magnetism; electro-magnetism; thermo-electricity.

Seventh branch—Heat.—Conditions of heat; characteristics of heat; theories of heat, ancient and modern; sources of heat, conduction, radiation and convection; specific heat; sensible and insensible caloric; effects of heat; instruments used for the measurement of heat; thermodynamics.

Eighth branch—Chemistry.—Chemical physics; general principles of chemical philosophy; principal elements and their compounds, especially as illustrating combustion, corrosion, the metals, analysis of fuels, water, sea water, boiler scale, lubricating matter, and illuminating oils.

SIXTH DEPARTMENT—ETHICS AND ENGLISH STUDIES.

First branch—English Grammar.—Orthography; etymology; the analysis and synthesis of sentences; idioms; punctuation.

Second branch—Descriptive Geography.—Knowledge of the land and water surface; the grand divisions of the earth, and their relative situation; extent and boundaries of the several countries in each of the grand divisions; their natural productions; their commerce, manufactures and governments; their naval and military strength. The use of globes and maps.

Third branch—Physical Geography.—The form and motions of the earth; the seasons and climates; the distribution of land and water; mountain ranges; declivities and basins; desert and lake zones; river systems; the currents of the ocean; geographical distribution of plants and animals; influence of physical causes on man.

Fourth branch—Outlines of History.—Ancient and modern; in the latter, mainly that of America, England, France, and Spain, during the last three centuries; written biographical and historical exercises.

Fifth branch—Rhetoric.—Verbal criticism; the principles of taste, and their application; original compositions, embracing official reports.

Sixth branch—Ethics.—The ground of moral obligation; our relations to God, and consequent duties; personal duties; the chief relations of men to each other in society, and the duties thence arising. (To be taught by means of familiar lectures, given by the chaplain.)

Seventh branch—Political Science.—A review of the origin and structure of the federal government of the United States of America; its constitutional law; the acts of Congress for the better government of the navy; the law of nations generally; the rights and duties of nations in peace and in war.

SEVENTH DEPARTMENT—FRENCH.

Reading and writing the French language correctly; exercises in speaking it.

EIGHTH DEPARTMENT—SPANISH.

Reading and writing the Spanish language correctly; exercises in speaking it.

NINTH DEPARTMENT—DRAWING.

Right-line drawing, sketching, and perspective; topographical and chart drawing.

The foregoing studies shall be distributed into four annual courses, and the midshipmen shall be arranged in four classes, each class pursuing one of these courses.

LETTER TO CANDIDATES.

NAVY DEPARTMENT,
WASHINGTON, *January 31, 1863.*

Application having been made on your behalf for admission to the United States Naval Academy, you will find, in the enclosed permit, a statement of the requisite qualifications for admission. Should you, on examination, show a fair proficiency in the branches of knowledge there indicated, and comply with the other conditions, you will be received as a Midshipman, and become thenceforward an officer of the Navy of the United States. So great is the importance of this step, not merely to yourself, but to the public, that the Secretary deems it a fit occasion to call your attention to the obligations which you assume in this new and honorable character.

You will bear in mind, then, that the Government, in receiving you into its Naval Academy, undertakes to furnish you, at the public expense, with a superior scientific and practical education, under the instruction of thoroughly accomplished teachers. This is a privilege which, in the nature of things, can fall to the lot of but a small portion of the youth of the country, and it is one which, in all probability, many of the pupils of the Academy would otherwise not enjoy. It is, however, but the smallest part of what the Government does for you. In admitting you to the Academy it secures to you an adequate provision, in a most honorable calling, for your future support, of which, while you live, nothing but incapacity or misconduct can deprive you. This great benefit, however, is not conferred on the pupils of the Naval Academy from any favoritism to them, but from great public motives. In the present state of the world, the safety and honor of a country require that a portion of the young men should be regularly educated and trained in the science and art of war. This is necessary in both arms of the service, but peculiarly so in the Navy. There are several instances in the land service of brilliant success on the part of chieftains who first entered the field in middle life; but the instances are much less frequent of distinguished naval commanders who did not commence their preparation in youth. This is the important reason for which the country has called the pupils of the Academy from their homes, and conferred upon them the above-mentioned enviable privileges.

You must, therefore, bear constantly in mind that these privileges, great as they are, are trusts for which the country will hold you strictly accountable. Henceforward, your time is not your own; it belongs to the public. The Government takes you into its service in your youth because your preparation for the active duties of your career cannot be safely delayed to more advanced years. So much scientific, mechanical, and practical knowledge must be acquired, that nothing short of diligent application, commenced in early life, will enable the faithful officer to obtain a thorough mastery of his profession. It is a great error to suppose that nothing is necessary to make a good officer but the physical courage required in time of action, and which is to some extent a natural gift. This, of course, is indispensable; but it is one only of the qualifications for the service. Beginning at the foundation, the thorough-bred naval officer must know something of ship-building, alike in wood and iron; not that he needs the knowledge of the naval architect, but he must be able to judge of the work both of construction and repair, and be competent to provide a prompt remedy for disasters at sea. He must be intimately acquainted with the rig, equipment, and handling of his vessel; must understand the navigation of the ocean by sails and steam; be familiar with the great currents of the sea and of the atmosphere; and have an accurate knowledge of the principal ports and harbors in every quarter of the globe. He must be thoroughly versed in every variety of naval armament, ordnance, and ammunition—a field of knowledge of which the limits have been greatly enlarged of late years, and in which still further advances are in rapid progress. Thus prepared in the lower branches of his profession, he must, by experience, gradually

acquired on a small scale, and by diligent study of the lives and exploits of illustrious commanders, learn, as far as it can be learned in this way, not only how single ships are fought, but how great fleets are manœuvred and led to glorious victories.

To attain these great ends, abstract science and mechanical art furnish but the lower instruments. Moral influences must lend their all-powerful aid. Beginning with the arduous task of self-government, of which the habit must be acquired by cheerful conformity to the discipline of the Academy and the subordination of the service, the accomplished officer must learn the great art of governing others over whom he may be placed in the public service. He must learn the lesson of command in the school of obedience. A fractious and intractable pupil, if he succeed in obtaining promotion, will be nearly sure to make an arbitrary and tyrannical officer. Treated as you will be, with parental kindness at the Academy, nothing that you will learn there is more important than the art of gaining the confidence and winning the affection of those whom you may hereafter command. The officer who acquires the good will of his men by kind words and deeds will be far more successful in enforcing the necessarily strict discipline of a man-of-war, than one who deals in rough language, oaths, and harsh treatment. It is related of a distinguished British naval officer, (Lord Collingwood,) that the most refractory seamen were transferred to his vessel from all the other ships in the fleet, not because his discipline was the most severe, but because it was at once the most gentle and the most efficacious.

The duties thus enumerated, numerous and important as they are, are not all that devolve on the naval officer. In addition to the skill appropriately belonging to his profession, it is necessary that his manners should be marked with courtesy and refinement, and that his mind should be amply stored with useful knowledge. In the service of a great naval power, he will, on foreign stations, often be called upon to appear as the representative of his Government. He will be brought into contact with the naval commanders of other countries, and sometimes with personages of the highest rank and consequence. On these occasions the good name and consideration of his country are, to some extent, in his hands. Still more, he will sometimes be obliged, with little opportunity for deliberation, and no time to consult his government, to decide important questions of the law of nations. It is evident that the most momentous consequences may flow from the degree of intelligence with which he may act on such occasions.

These are the reasons for which the country calls a selected number of her children, in the morning of their days, to enter her naval service. The common parent of all, she bestows upon them these enviable advantages in order to fit them for the various and arduous duties to which I have alluded. The young officer, accordingly, when he enters the Naval Academy, becomes the pledged servant of the country, of the whole country, bound by the strongest ties of duty and gratitude to serve her with fidelity and zeal. He is henceforward an officer, not of the State in which he was born or in which he resides, but of the United States of America. He may have been born at the East or the West, the North or the South, but his allegiance is due to the Union—to the Government which has educated him, which has commissioned him, and which he has solemnly sworn to defend. Wheresoever the voice of duty or lawful authority may call him, there he will cheerfully hasten to sustain the honor of his country's flag, to protect her lawful commerce, to combat her enemies. It may be his duty to risk, perhaps to sacrifice, his life, like the naval heroes who shed undying glory on the American Navy in the last generation, in open war against a legitimate foe; or to follow a piratical sea-rover, meanly fitted out by foreign cupidity for the work of devastation and plunder; or to pass weary days and nights in watching the ports of rebels in arms against their country; or to launch the terrific thunders of his broadsides on their fortresses—whatever the duty may be, it will be diligently, zealously, and heroically performed.

The character of the struggle in which the Government and loyal people of the country have been engaged gives a peculiar significance to these considerations; nor can the Secretary forbear to allude to the all-important services which were rendered by the Navy during that contest. The outbreak of the rebellion found this arm of the service on a peace establishment, its squadrons widely dispersed: some of its most important home stations situated in the seceding States, and soon seized—too often with treacherous connivance—and passed into

rebel hands. Enfeebled as the Navy was by these causes, and still further by the necessary sacrifice of vessels, to prevent them from falling into the hands of the enemy; compelled to call into the service with urgent haste a numerous fleet of vessels not constructed for warlike purposes; above all, obliged, without previous preparation, to inaugurate a novel system of armature, the Navy performed its herculean labors with an energy and success that reflect the highest credit on all belonging to it, officers and men, and which the Secretary takes great pleasure in holding up to the emulation of the young men at the Academy, who will hereafter be called upon to sustain the well-earned reputation of this branch of the service.

Especially let the young men now entering the Navy impress upon their minds, as the great lesson of the day, that of all the duties of a faithful officer, the first and foremost is that of fidelity to his flag—the sacred symbol of the Government which has trained him to its defence, and confided its honor to his keeping. Let him, as he sets his foot on the threshold of the Academy, form the firm resolve, living or dying, to be faithful to that great trust. Let him, in advance, steel his mind against the wretched sophistry under the influence of which a portion of the naval officers in the rebellious States, (but by no means all of them,) deceived and misled, against their own better impulses, by the craft of politicians, have allowed themselves to raise a parricidal arm against their country, employing the fruits of the education received at its expense, and of the experience gained in its service, in aid of an unprovoked and cruel rebellion. Before he enters on actual service, the young officer takes a solemn oath “to support, protect, and defend the Constitution of the United States against all enemies, whether domestic or foreign;” and the Secretary would earnestly impress upon the young men, on their admission to the Naval Academy, that no human power can absolve them from that obligation. The madness of the hour may cause a misguided man to forget that he has called his God so to deal with him as he shall keep or break his oath, but the time will come, even in this world, when the sin of perjury will lie heavy on his soul.

But the Secretary is confident that no one of the young gentlemen now entering the Naval Academy, or already there, will ever incur the foul reproach of betraying the flag of the Union. They will uphold it on every sea and on every shore, by every effort and at every hazard, in the storm of the elements or the storm of battle. They will live for it and fight for it; if need be, they will bleed for it. While it floats they will stand by it, and, if it must sink, they will go down with it, rather than disgrace or betray it.

The Secretary forbears to enter into any particular statements as to the studies, exercises, and discipline of the Academy. The intelligent officer charged with the Superintendence of the Institution, and who possesses the entire confidence of the Department, aided by his able and efficient associates, will, from time to time, call your attention to the various details of duty; and the Secretary confidently trusts that, under their guidance, you will, by the faithful improvement of your great opportunities, prepare yourself for eminent usefulness and high honor in the service of the country.

GIDEON WELLES,

Secretary of the Navy.

REGULATIONS

GOVERNING THE

ADMISSION OF CANDIDATES INTO THE NAVAL ACADEMY.

I. The number of midshipmen allowed at the Academy is one for every member and delegate of the House of Representatives, one for the District of Columbia, ten appointed annually at large, and ten selected each year from boys enlisted in the navy who have been at least one year in the service on board a naval vessel.

II. The nomination of candidates for admission from the District of Columbia, from the enlisted boys, and at large, is made by the President. The nomination of a candidate from any Congressional district or Territory is made on the recommendation of the member or delegate, from actual residents of his district or Territory.

III. Each year, as soon after the fifth of March as possible, members and delegates will be notified, in writing, of vacancies that may exist in their districts. If such members or delegates neglect to recommend candidates by the first of July in that year, the Secretary of the Navy is required by law to fill the vacancies existing in districts actually represented in Congress.

IV. The nomination of candidates is made annually, between the fifth of March and the first of July. Candidates who are nominated in time to enable them to reach the Academy between the twentieth and thirtieth of June, will receive permission to present themselves at that time to the Superintendent of the Naval Academy for examination as to their qualifications for admission. Those who are nominated prior to July 1st, but not in time to attend the June examination, will be examined between the twentieth and thirtieth of September following; and should any candidate fail to report, or be found physically or mentally disqualified for admission in June, the member or delegate from whose district he was nominated will be notified to recommend another candidate, who shall be examined between the twentieth and thirtieth of September following.

V. No candidate will be admitted into the naval academy unless he shall have passed a satisfactory examination before the Academic Board, and is found (in the opinion of a medical board, to be composed of the Surgeon of the Naval Academy and two other medical officers designated by the Secretary of the Navy) physically sound, well formed, and of robust constitution, and qualified to endure the arduous labors of an officer in the navy.

VI. Candidates for appointment as midshipmen must be between fourteen and eighteen years of age when examined for admission. All candidates for admission will be required to certify, *on honor*, to their precise age, to the Academic Board, previous to examination, and none will be examined who are over or under the prescribed age. They must be of good moral character, satisfactory testimonials of which, from persons of good repute in the neighborhood of their respective residences, must be presented; and testimonials from clergymen, instructors in colleges and high schools, will have special weight. They must also pass a satisfactory examination before the Academic Board in reading, writing, spelling, arithmetic, geography, and English grammar, viz: in *reading*, they must read clearly and intelligibly from any English narrative work—as, for example, Bancroft's History of the United States; in *writing* and *spelling*, they must write from dictation, in a legible hand, and spell with correctness both orally and in writing; in *arithmetic*, they will be examined in numeration and the addition, subtraction, multiplication, and division of whole numbers and

vulgar and decimal fractions, and in proportion, or the rule of three; in *geography*, they will be examined as to the leading grand divisions—the continents, oceans, and seas, the chief mountains and rivers, and the boundaries and population of the chief nations, their government, capitals, and chief cities; in *English grammar*, they will be examined as to the parts of speech and the elementary construction of sentences, and will be required to write an original paragraph of a few sentences. The Board will judge whether the proficiency of the candidate in these branches is sufficient to qualify him to enter upon the studies of the Academy.

VII. Any one of the following conditions will be sufficient to reject a candidate:

Feeble constitution; permanently impaired general health; decided cachexia; all chronic diseases, or results of injuries that would permanently impair efficiency, viz:

1. Infectious disorders.
2. Weak or disordered intellect.
3. Unnatural curvature of spine.
4. Epilepsy, or other convulsion, within five years.
5. Chronic impaired vision, or chronic disease of the organs of vision.
6. Great permanent hardness of hearing, or chronic disease of the ears.
7. Loss or decay of teeth to such an extent as to interfere with digestion and impair health.
8. Impediment of speech to such an extent as to impair efficiency in the performance of duty.
9. Decided indications of liability to pulmonary disease.
10. Permanent inefficiency of either of the extremities.
11. Hernia.
12. Incurable sarcocele, hydrocele, fistula, stricture, or hemorrhoids.
13. Large varicose veins of lower limbs. Chronic ulcers.

14. Attention will also be paid to the stature of the candidate; and no one *manifestly* undersized for his age will be received into the Academy. In case of doubt about the physical condition of the candidate, any marked deviation from the usual standard of height will add materially to the consideration for rejection.

NOTE.—The Medical Board of 1864 adopted the following standard for the height of candidates: 14 years of age, 4 feet 10 inches; 15 years, 5 feet; 16 years, 5 feet 2 inches; 17 years, 5 feet 3 inches; 18 years, (nearly,) 5 feet 4 inches; the candidates to be of proportionate size especially with regard to cerebral, osseous, and muscular development; the youngest to weigh not less than 100 pounds, and the oldest not less than 120 pounds.

15. The Board will exercise a proper discretion in the application of the above conditions to each case; rejecting no candidate who is likely to be efficient in the service, and admitting no one who is likely to prove physically inefficient.

VIII. If both these examinations result favorably, the candidate will receive an appointment as midshipman, become an inmate of the Academy, and be allowed his actual and necessary traveling expenses from his residence to the Naval Academy, and be required to sign articles by which he will bind himself to serve in the United States Navy eight years, (including his term of probation at the Naval Academy,) unless sooner discharged. If, on the contrary, he shall not pass both of these examinations, he will receive neither an appointment nor his traveling expenses, nor can he by law have the privilege of another examination for admission to the same class unless recommended by the board of examiners.

IX. When candidates shall have passed the required examinations, and been admitted as members of the Academy, they must immediately furnish themselves with the following articles, viz:

Two navy blue uniform suits;
One fatigue suit;
Two navy blue uniform caps;
One uniform over-coat;
Six white shirts;
Six pair of socks;
Four pair of drawers;

Six pocket handkerchiefs;
One black silk handkerchief or stock;
One mattress;
One pillow;
One pair of blankets;
One bed cover, or spread;
Two pair of sheets;

Four pillow cases;
Six towels;
Two pair of shoes or boots;
One hair-brush;
One tooth-brush;

One clothes-brush;
One coarse comb for the hair;
One fine comb for the hair;
One tumbler, or mug; and
One thread and needle case.

Room-mates will jointly procure, for their common use, one looking-glass, one wash-basin, one water-pail, one slop-bucket, and one broom. These articles may be obtained from the storekeeper of the Academy, of good quality and at fair prices.

X. Each midshipman must, on admission, deposit with the paymaster the sum of one hundred dollars, for which he will be credited on the books of that officer, to be expended by direction of the Superintendent for the purchase of text-books and other authorized articles besides those enumerated in the preceding article.

XI. A midshipman found deficient at any examination cannot, by law, be continued at the Academy or in the service, unless upon the recommendation of the Academic Board.

XII. A midshipman who voluntarily resigns his appointment within a year of the time of his admission to the Academy will be required to refund the amount paid him for traveling expenses.

XIII. A midshipman may be advanced to any class which he may be found qualified to join, either upon his admission or at any subsequent examination; and he may be graduated at any June examination at which he shall be found fully qualified to pass a graduating academic examination.

GIDEON WELLES,

Secretary of the Navy.

OFFICERS AND MIDSHIPMEN

ATTACHED TO THE

PRACTICE SHIPS MACEDONIAN, SAVANNAH, AND DALE—SUMMER CRUISE, 1868.

Commander STEPHEN B. LUCE, *Commanding the Division.*

SLOOP SAVANNAH.

Lieut. Commanders—E. O. Matthews, E. Terry, G. C. Remey, S. D. Greene, J. O'Kane, S. P. Gillett, W. T. Sampson, and P. H. Cooper. *Surgeon*—H. C. Nelson. *Paymaster*—J. E. Tolfree. *Chaplain*—D. McLaren. *Assistant Professor*—Bernard Maurice. *Boatswain*—John Smith. *Gunner*—John Gaskins. *Carpenter*—Oliver W. Griffiths. *Sailmaker*—Henry W. Frankland.

GRADUATING CLASS OF MIDSHIPMEN.

G. K. Adams,	C. T. Forse,	A. C. McMeehan,	H. Smith,
S. Ames,	J. M. Hawley,	E. K. Moore,	T. H. Stevens,
G. K. Bower,	J. C. Hull,	C. F. Norton,	H. C. Stinson,
R. M. G. Brown,	R. T. Jasper,	E. S. Prime,*	C. A. Stone,
C. W. Chipp,	J. D. J. Kelley,	J. A. Rodgers,*	H. M. Tallman,
J. K. Cogswell,	D. Kennedy,	R. P. Rodgers,	W. E. Uhler,
E. M. Day,*	T. N. Lee,	N. L. Roosevelt,	G. C. Wallace.
T. A. DeBlois,	C. P. Welch,	A. B. Wyckoff,	
A. Elliot,	H. McElroy,*	F. Singer,	

FIRST CLASS.

E. J. Arthur,	J. H. Bull,	H. O. Handy,	A. P. Osborn,
E. B. Barry,	C. A. Clarke,	G. B. Harber,	N. J. K. Patch,
F. S. Bassett,	J. H. C. Coffin,	U. R. Harris,	C. P. Perkins,
A. G. Berry,	C. K. Curtis,	J. B. Hobson,	H. M. M. Richards,
F. C. Birney,	R. G. Davenport,	N. T. Houston,	E. H. Taunt,
L. E. Bixler,	W. P. Day,	W. Kellogg,	A. M. Thackara,
H. A. Blanchard,	W. H. Driggs,	H. C. Longnecker,	G. H. Tuller,
T. D. Bolles,	E. A. Field,	W. F. Low,	W. H. Turner,
R. A. Breck,	J. Franklin,	E. O. Macfarlane,	J. C. Wilson,
J. B. Briggs,	J. Garvin,	N. E. Mason,	H. Winslow,
C. R. Brown,	J. W. Graydon,	W. C. Negley,	G. F. Wright.
W. F. Bulkley,	M. E. Hall,	J. A. H. Nickels,	

SECOND CLASS.

W. S. Baker,	L. C. Heilner,	A. B. Milliman,	N. Sargent,
G. A. Calhoun,	W. S. Holliday,	J. B. Murdock,	J. H. Sawyers,
J. B. Collins,	J. Hubbard,	H. E. Muhlenberg,	W. S. Scott,
F. H. Crosby,	M. D. Hyde,	H. C. Nye,	B. M. Shaffner,
A. C. Dillingham,	H. M. Jacoby,	T. Porter,	T. C. Spencer,
G. L. Dyer,	L. P. Jouett,	J. A. Post,	J. H. Utley,
F. Ellery,	C. P. Kunhardt,	W. P. Ray,	W. H. Van de Carr,
J. M. Gore,	C. H. Lyman,	W. Remsen,	C. E. Vreeland,
H. L. Green,	W. G. Mayer,	H. O. Rittenhouse,	F. Winslow.
H. Hancock,			

THIRD CLASS.

P. Arnold,	W. Fraser,	H. McCrea,	W. H. Slack,
Z. T. Babcock,	W. S. French,	H. P. McIntosh,	R. D. Stevens,
C. W. Bartlett,	C. D. Galloway,	G. D. McCarty,	C. Thomas,
C. W. Brown,	F. E. Greene,	A. Mertz,	B. C. Tillinghast,
C. G. Calkins,	F. Guertin,	J. C. Montgomery,	E. C. Tittman,
A. H. Cobb,	G. C. Hanus,	E. R. Norton,	G. A. Vail,
J. C. Cresap,	H. L. Heiskell,	W. T. B. O'Reilly,	H. S. Waring,
T. C. Denny,	F. S. Hotchkin,	G. A. Sanderson,	A. Ward,
J. Downes,	J. L. Hunsicker,	B. B. Scott,	D. Whipple.
W. P. Elliott,	W. M. Irwin,	G. L. Selden,	T. C. Wood,
C. A. Foster,	W. A. Marshall,	W. E. Sewell,	D. L. Worsley.
R. S. Graham,	W. H. E. Masser,		

SLOOP MACEDONIAN.

Lieut. Commanders—T. O. Selfridge, F. V. McNair, N. H. Farquhar, Theo. F. Kane, W. S. Schley, S. Casey, and B. J. Cromwell. *Passed Assistant Surgeon*—Samuel F. Shaw. *Paymaster*—Wm. Lee Darling. *Assistant Professor*—L. F. Prud'homme. *Boatswain*—J. C. Walton. *Gunner*—Joseph Swift. *Carpenter*—James McDonnell. *Sailmaker*—George W. Giet.

GRADUATING CLASS OF MIDSHIPMEN.

C. A. Adams,	R. C. Derby,	T. C. McLean,	A. B. Speyers,
J. D. Adams,	F. J. Drake,	N. E. Niles,	W. C. Strong,*
N. H. Barnes,	T. M. Etting,	B. Noyes.	R. M. Thompson,
W. H. Beehler,	J. R. Fletcher,*	L. G. Palmer,	H. L. Tremain,
G. Blochlinger,	P. Garst,	F. W. Perkins,*	F. E. Upton,
J. W. Carlin,*	J. B. House,	J. B. Robinson,*	A. V. Wadhams,
C. A. Copp.	R. R. Ingersoll,	J. R. Selfridge,	R. Wainwright,*
W. M. Cowgill,	J. C. Irvine,	J. B. Smith,	W. Woart.

FIRST CLASS.

E. J. Berwind,	W. A. Hadden,	J. H. Moore,	K. Rohrer,
C. G. Bowman,	F. B. Hull,	A. P. Nazro,	C. H. Ruschenberger,
C. A. Bradbury,	W. W. Kimball,	K. Niles,	H. T. Stockton,
B. H. Buckingham,	W. S. King,	J. A. Norris,	D. D. V. Stuart,
C. E. Colahan,	D. Mahan,	S. C. Paine,	J. P. Wallis,
G. P. Colvocoresses,	S. H. May,	T. S. Phelps,	E. H. Wiley,
S. P. Comly.	J. Milligan.	W. P. Potter,	H. McKie Wing,
W. E. B. Delahay,	R. Mitchell,	Thos. Rodd,	G. A. Zabriskie.
A. B. Fowler,	H. T. Monahan,		

SECOND CLASS.

J. S. Abbot,	S. L. Graham,	B. Leach,	H. R. Penington,
J. P. J. Augur,	H. Harris.	F. L. Ludlow,	C. P. Rees,
C. Briggs,	G. W. Holman,	A. McCrackin,	C. S. Richman,
J. W. Danenhower,	G. B. Hoyt,	C. McDonald,	T. G. C. Salter,
M. C. Dimock,	E. M. Hughes,	G. A. Merriam,	H. W. Schaefer,
C. F. Emmerich,	J. J. Hunker,	J. B. Milton,	E. L. Shaffer,
H. F. Fickbohn,	J. D. Keeler,	J. P. Norton,	J. R. Spears,
F. H. Gentsch,	W. Kilburn,	H. Osterhaus,	H. R. Tyler,
W. P. Conway,	G. W. Mentz,	R. G. Peck,	W. M. Wood.

THIRD CLASS.

R. J. Anderton,	T. D. Carnahan,	H. L. Gosling,	S. Seabury,
W. C. Babcock,	W. P. Clason,	F. H. Lefavor,	W. A. Siter,
G. C. Barnette,	G. W. Cory,	D. S. Little,	S. A. Staunton.
J. A. Barber,	A. A. Crandall,	W. S. Long,	C. Terrell,
A. C. Baker,	A. J. Dabney,	F. W. Nabor,	G. B. Vandervoort,
J. H. Brown,	J. T. Edson,	T. S. Plunket,	F. B. Veazie,
C. Bruns,	L. Fox,	E. F. Qualtrough,	M. Wilcox,
J. C. Burnett,	J. H. Fraunces,	J. E. Roller,	D. L. Wilson,
H. H. Barroll,	J. C. Freeman,	M. K. Schwenk,	J. M. Wight.
P. Busbee,			

SLOOP DALE.

Lieut. Commanders—M. Seard, J. A. Howell, C. L. Franklin, G. P. Ryan, J. R. Bartlett, and M. Miller.
Assistant Surgeon—Alfred Griffith. *Passed Assistant Paymaster*—E. N. Whitehouse. *Boatswain*—J. B. L. Langton. *Gunner*—Richard J. Hill.

GRADUATING CLASS OF MIDSHIPMEN.

W. J. Barnett,	W. H. Everett,	J. F. Moser,	S. Schroeder,
C. C. Cornwell,	C. W. Jarboe,	A. H. Parsons,	Geo. W. Tyler,
W. Doty,	T. B. M. Mason,	W. O. Sharrer,	T. T. Wood.

SECOND CLASS.

Charles H. Braho.

THIRD CLASS.

Franklin L. Greene.

FOURTH CLASS.

Daniel F. Baker,	Oswin W. Lowry,	William Polmyer,
Charles H. Crosswait,	Clinton H. Lyeth,	Frank H. Powers,
Robert H. Fletcher,	Murray D. McConnell,	Jesse M. Roper,
Charles E. Fox,	Robert H. McLean,	William D. Rosenerantz,
John C. Fremont,	Jacob Medary,	Arthur C. Smith,
Rogers H. Galt,	Charles R. Miles,	William H. H. Sutherland,
Nathaniel T. James,	Jacob K. Nagle,	Frederick Tyler,
Delmar R. Keeler,	William L. Pitcher,	Lemuel Van Epps.

NOTES.—Those of the Graduating Class marked thus* performed the whole practice cruise; the other members of the class were detached at West Point, N. Y., June 20, 1868.

Transfers of midshipmen of the 1st, 2d, and 3d classes were made while at West Point from the "Dale" to the "Savannah" and "Macedonian."

Boatswain John Smith relieved Boatswain George Smith of duty in the "Savannah" at West Point, June 22, 1868.

Boatswain James C. Walton relieved Boatswain Charles Johnston [of duty in the "Macedonian," at same place, June 19, 1868.

Practice Ships sailed June 7, and arrived in Annapolis Roads August 20, 1868.

OFFICERS AND MIDSHIPMEN

QUARTERED IN THE
SCHOOL-SHIP CONSTITUTION—(Second Rate.)

SCHOOL-SHIP CONSTITUTION.

Lieut. Com'r GEORGE DEWEY, *in Charge*.

Lieut. Com'r ARENT S. CROWNINSHIELD, *Assistant in Executive Duty*.

Mates.—Joseph Rodgers, Frederic Miller, William G. Smith, and Roscoe V. Wickes.

FOURTH CLASS OF MIDSHIPMEN.

Daniel F. Baker,	William H. Garrett,	Robert H. McLean,	William D. Rosencrantz,
William L. Baldwin,	Robert S. Graham,	Horace W. Mann,	Frank E. Sawyer,
Abel B. Brown,	William C. Heacock.	James S. Manley,	Milton K. Schwenk,
Joel H. Burns,	George W. Hey,	Jacob Medary,	William M. Slough,
Vincendon L. Cottman,	Nathaniel T. James,	Charles R. Miles,	Arthur C. Smith,
Charles H. Crosswait,	Delmar R. Keeler,	Charles T. Mitchell,	Wm. H. H. Sutherland,
Ion G. Dieterich,	Alexander Kirkland,	Jacob K. Nagle,	Charles A. Thompson,
Thomas F. Dixon,	Oren E. Lasher,	John Y. Oliver,	Frederic Tyler,
Alfred V. Dockery,	Edward Lloyd,	William L. Pitcher,	Germain B. Vandervoort,
Robert H. Fletcher,	Walter T. Livingston.	William Polmyer,	Lemuel Van Epps,
Charles E. Fox,	Oswin W. Lowry,	Frank H. Powers,	Ten Eyck De Witt Veeder,
Albert T. Freeman,	Clinton H. Lyeth,	Benjamin F. Rinehart,	James H. Winlock,
John C. Fremont, jr.,	Murray D. McConnell.	Jesse M. Roper,	George T. Winston.—53.
Rogers H. Galt,			

GUNNERY-SHIP SANTEE—(Second Rate.)

Lieut. Com'r SIMEON P. GILLETT, *Assistant Instructor in Gunnery*.

Mates.—Lewis Burns, Robert Robinson, Charles H. Chase, Lewis M. Melcher.

Lieut. Com'r GEORGE DEWEY, *in charge of Ships*.

Captain M'LANE TILTON, *Commanding Marine Guard*.

MACEDONIAN—(Second Rate.)

Paymaster.—James Hoy, jr. *Boatswain*.—Jeremiah Harding. *Gunner*.—John Gaskins. *Sailmaker*.—George W. Giet.

DALE—(Fourth Rate.)

Passed Assistant Paymaster.—Edward N. Whitehouse. *Boatswain*.—William Long. *Gunner*.—George Fouse. *Mate*.—William Best.

MARION—(Fourth Rate.)

Paymaster.—Worthington Goldsborough. *Mates*.—Robert Silver, Charles J. Murphy, *Boatswain*.—John Hall.

First Assistant Engineer GEORGE J. BARRY, *in charge of machinery afloat*.

TONAWANDA. IRON-CLAD—(Third Rate.)

Mate.—David Fader.

MERCURY—(Steam Tug.)

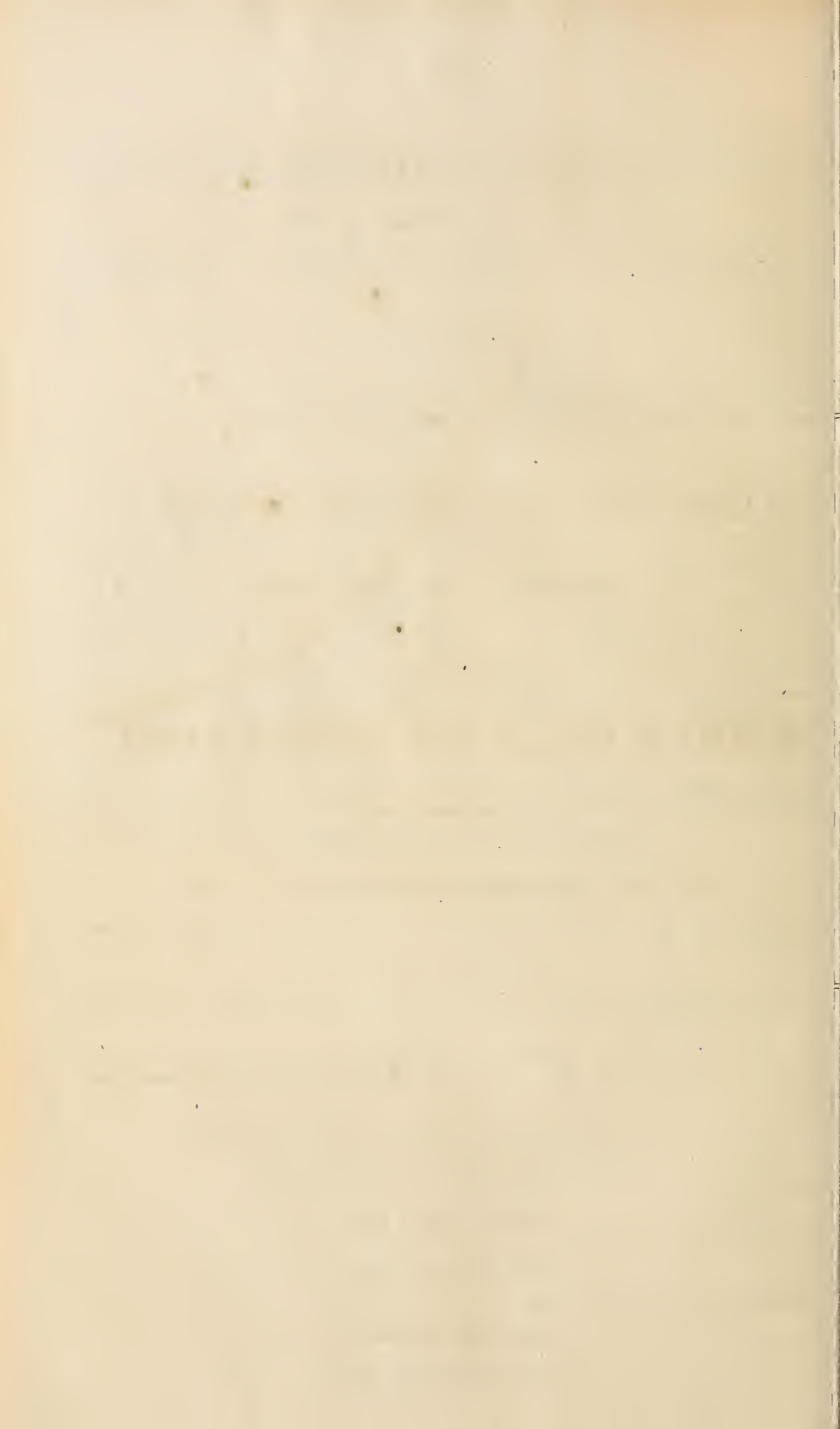
Mate JOHN BROWN, *in charge*.

PHLOX—(Steam Tender.)

Mate BENJAMIN G. PERRY, *in charge*.

SCHOONER AMERICA.

WYANDANK—(Fourth Rate.)



ACTING THIRD ASSISTANT AND CADET ENGINEERS

ON PROBATION AT THE NAVAL ACADEMY,

ARRANGED

IN ORDER OF MERIT IN THEIR RESPECTIVE CLASSES,

AS DETERMINED AT THE

GENERAL EXAMINATION IN MAY, 1868.

ACTING THIRD ASSISTANT ENGINEERS

On probation at the Naval Academy, forming a Class in Steam Engineering of sixteen (16) Members.—Graduating Class of 1868.

Order of general merit.	NAME.	STATE.	DATE OF ADMISSION.	Age at date of admission.		ORDER OF MERIT IN—											
				Years.	Months.	Steam.	Applied Mechanics.	Practical Exercises.	Chemistry and Metallurgy.	Iron Ship Construction.	French.	Spanish.	Fencing.	Graduating Thesis.	Average First Year.	Average Second Year.	
1	Charles D. Bray	R. I.	Oct. 10, 1866	22	6	1	1	3	1	1	9	7	4	1	1	1	
2	George S. Gates	Mass.	Oct. 10, 1866	21	2	3	5	2	6	3	12	12	3	14	4	2	
3	Herschel Main	D. C.	Oct. 10, 1866	21	2	4	3	11	3	6	4	2	12	2	3	3	
4	Francis N. Trevor	N. Y.	Oct. 10, 1866	22	4	11	13	7	7	12	1	5	6	4	2	8	
5	Theron Skeel	N. Y.	Oct. 10, 1866	19	3	6	7	5	4	9	15	15	16	3	7	4	
6	Holland N. Stevenson ..	N. Y.	Oct. 10, 1866	22	1	9	8	6	5	13	13	14	14	5	6	9	
7	Frank J. Symmes	Mass.	Oct. 10, 1866	19	4	12	2	9	10	2	8	4	7	8	10	5	
8	John Q. A. Ford	N. Y.	Oct. 10, 1866	23	9	14	11	4	8	5	7	6	8	7	9	7	
9	Charles F. Purdie	N. Y.	Oct. 10, 1866	21	0	8	12	1	14	8	16	16	9	9	8	10	
10	Julian S. Ogden	N. Y.	Oct. 10, 1866	19	9	10	4	10	9	4	5	3	2	6	11	6	
11	Charles W. Rae	N. Y.	Oct. 10, 1866	19	3	7	10	8	11	7	10	8	10	15	5	11	
12	George H. Kearney	N. Y.	Oct. 10, 1866	18	6	5	9	13	13	11	3	10	5	13	12	13	
13	John B. Peck	R. I.	Oct. 10, 1866	21	1	2	6	16	2	10	2	1	13	11	13	12	
14	Jones Godfrey	Mass.	Oct. 10, 1866	19	2	13	14	14	15	14	11	11	11	10	16	14	
15	William S. Moore	Mass.	Oct. 10, 1866	20	7	15	15	12	12	15	14	13	1	12	15	15	
16	Cyrus D. Foss	Mass.	Oct. 10, 1866	19	7	16	16	15	16	16	6	9	15	16	14	16	

CADET ENGINEERS.

Two (2) in number.—Graduating Class of 1868.

Order of general merit.	NAME.	STATE.	DATE OF ADMISSION.	Age at date of admission.		ORDER OF MERIT IN—										
						Steam.	Applied Mechanics.	Practical Exercises.	Chemistry and Metallurgy.	Iron Ship Construction.	French.	Spanish.	Fencing.	Graduating Thesis.	Average First Year.	Conduct.
				Years.	Months.											
1	James Steel	Wis.	Oct. 7, 1867	21	1	1	1	2	1	1	1	1	1	1	1	2
2	Charles P. Howell	N. Y.	Oct. 7, 1867	19	8	2	2	1	2	2	2	2	2	2	2	1

Course of study accomplished in one Academic Year.

COURSE OF INSTRUCTION FOR ENGINEER CLASS,

(ACTING THIRD ASSISTANTS.)

PROGRAMME.

Mechanical Drawing.—*a*, Elements; *b*, Details and Plans of Machines.

Physics.—*a*, Heat; *b*, Steam.

Chemistry.—*a*, Chemical Philosophy; *b*, Elements; *c*, Analysis—qualitative and blow pipe; *d*, Coals, Ores, and Oils—lubricating and illuminating.

Thermo-dynamics.

Machines.—*a*, Kinematics; *b*, Theory of Machines; *c*, Prime Movers—Hydraulic Motors, Steam Engines, Air Engines, Electro-Magnetic Motors; *d*, Construction of Machines; *e*, Location and Erection of Machines; *f*, Designs and Estimates for, and Reviews of, Special Machines.

Construction.—*a*, Plans and Estimates for Boiler and Machine Shops, Foundries, Smelting Works, and Rolling Mills; *b*, Plans and Estimates for Shipways and Slips.

Management of Machinery.—Practical Exercises with Steam Engine and Boilers.

Iron Ship-building.—*a*, Designing and Construction; *b*, Inspection; *c*, Launching and Repairs.

Practical Exercises.—Personal Manipulations of Tools used in working woods and metals.

REGULATIONS

FOR THE

APPOINTMENT OF CADET ENGINEERS IN THE NAVY.

I. In pursuance of the third and fourth sections of an act passed at the first session of the 38th Congress, approved July 4, 1864, "*To authorize the Secretary of the Navy to provide for the education of Naval Constructors and Steam Enginecrs, and for other purposes,*" and of the second section of an act passed at the first session of the 39th Congress, approved March 2, 1867, entitled "*An act to amend certain acts in relation to the Navy,*" applications will be received by the Navy Department for the appointment of Cadet Engineers.

II. The application is to be addressed to the Secretary of the Navy, and can be made by the candidate or by any person for him, and his name will be placed on the register. The registry of a name, however, gives no assurance of an appointment, and no preference will be given in the selection to priority of application.

III. The number of Cadet Engineers is limited by law to fifty. The candidate must be not less than eighteen nor more than twenty-two years of age, and his application must be accompanied by satisfactory evidence of moral character and health, with information regarding date of birth and educational advantages hitherto enjoyed. Candidates who receive permission will present themselves to the Superintendent of the Naval Academy between the 20th and 30th of September, for examination as to their qualifications for admission.

IV. The course of study will comprise two academic years. All cadets who graduate will be immediately warranted as Third Assistant Engineers in the Navy. The pay of a Cadet is the same as that of Midshipmen.

V. The academic examination previous to appointment will be on the following subjects, namely: *Arithmetic*; the candidate will be examined in numeration and the addition, subtraction, multiplication, and division of whole numbers, and of vulgar and decimal fractions; in reduction; in proportion, or rule of three, direct and inverse; and in involution and the extraction of square and cube roots. *Algebra*, (Bourdon;) *Gcometry*, (Davies' Legendre;) *Rudimentary Natural Philosophy*; *Elements of Inorganic Chemistry*; *English Grammar and English Composition*; *History of the United States*; also, a brief outline of *Ancient and Modern History*. The candidate will also be required to exhibit a fair degree of proficiency in pencil sketching and right-line drawing, and he must be able to describe all the different parts of ordinary condensing and non-condensing engines, explain their uses and operation; also, the ordinary tools used for construction purposes.

VI. Any one of the following conditions will be sufficient to reject a candidate:

Feeble constitution; permanently impaired general health; decided cachexia; all chronic diseases, or results of injuries that would permanently impair efficiency, viz:

1. Infectious disorders.
2. Weak or disordered intellect.
3. Unnatural curvature of spine.
4. Epilepsy, or other convulsion, within five years.
5. Chronic impaired vision, or chronic diseases of the organs of vision.
6. Great permanent hardness of hearing, or chronic disease of the ears.
7. Loss or decay of teeth, to such an extent as to interfere with digestion and impair health.
8. Impediment of speech, to such an extent as to impair efficiency in the performance of duty.
9. Decided indications of liability to pulmonary disease.
10. Permanent inefficiency of either of the extremities.
11. Hernia.

12. Incurable sarcocele, hydrocele, fistula, stricture, or hæmorrhoids.

13. Large varicose veins of lower limbs. Chronic ulcers.

14. Attention will also be paid to the stature of the candidate; and no one *manifestly* undersized for his age will be received into the Academy. In case of doubt about the physical condition of the candidate, any marked deviation from the usual standard of height will add materially to the consideration for rejection.

15. The Board will exercise a proper discretion in the application of the above conditions to each case; rejecting no candidate who is likely to be efficient in the service, and admitting no one who is likely to prove physically inefficient.

VII. If both these examinations result favorably, the candidate will receive an appointment as a Cadet Engineer, become an inmate of the Academy, and be allowed his actual and necessary traveling expenses from his residence to the Naval Academy, and be required to sign articles by which he will bind himself to serve in the United States Navy six years, (including his term of probation at the Naval Academy,) unless sooner discharged. If, on the contrary, he shall not pass both of these examinations, he will receive neither an appointment nor his traveling expenses, nor can he have the privilege of another examination for admission *to the same class* unless recommended by the board of examiners.

VIII. When candidates shall have passed the required examinations, and been admitted as members of the Academy, they must immediately furnish themselves with the following articles, viz:

One navy blue uniform suit;
One fatigue suit;
One navy blue uniform cap;
One uniform overcoat;
Six white shirts;
Six pair of socks;
Four pair of drawers;
Six pocket handkerchiefs;
One black silk handkerchief, or stock;
One mattress;
One pillow;
One pair of blankets;

One bed cover or spread;
Two pair of sheets;
Four pillow cases;
Six towels;
Two pair of shoes or boots;
One hair-brush;
One tooth-brush;
One clothes-brush;
One coarse comb for the hair;
One fine comb for the hair;
One tumbler, or mug; and
One thread and needle case.

Room-mates will jointly procure, for their common use, one looking-glass, one wash-basin, one water pail, one slop bucket, and one broom. These articles may be obtained from the storekeeper of the Academy, of good quality and at fair prices.

IX. Each Cadet Engineer must, on admission, deposit with the paymaster the sum of seventy-five dollars, for which he will be credited on the books of that officer, to be expended by direction of the Superintendent for the purchase of text-books and other authorized articles besides those enumerated in the preceding article.

X. While at the Academy the Cadets will be examined, from time to time, according to the regulations prescribed by the Navy Department; and if found deficient at any examination, or dismissed for misconduct, they cannot, by law, be continued in the Academy or naval service, except upon recommendation of the Academic Board.

XI. A Cadet Engineer who voluntarily resigns his appointment will be required to refund the amount paid him for traveling expenses.

GIDEON WELLES,
Secretary of the Navy.

COURSE OF INSTRUCTION

FOR

CADET ENGINEERS AT THE U. S. NAVAL ACADEMY.

MATHEMATICAL COURSE.

FIRST YEAR—FIRST TERM.

First Branch—Trigonometry.—Analytical investigation of trigonometrical formulas, and their application to the solution of all the cases in plane trigonometry; the construction and use of trigonometrical tables.

Second Branch—Application of Algebra and Trigonometry to the mensuration of planes and solids.

FIRST YEAR—SECOND TERM.

Third Branch—Analytical Geometry.—Construction of algebraic expressions; solution of determinate problems; equations of the right-line, plane, and conic sections. (discussion of the general equations of the second degree, involving two or three variables; determination of loci; principal problems relating to the cylinder, cone, sphere, and spheroids.)

SECOND YEAR—FIRST TERM.

Fourth Branch—(Differential and Integral Calculus.—Its principles, and its application to maxima and minima, and simpler problems relating to curves.)

NOTE.—The examination for admission will require a very thorough knowledge of Bourdon's Algebra as far as the general theory of equation; also, of Davies' Legendre and mensuration.

Those who pass a satisfactory examination for admission, and can show proficiency in the more advanced studies of the Department, will be assigned corresponding positions in the course. Those who show a sufficient acquaintance with *all* the mathematical branches taught at this institution, will at once be excused from further instruction in this Department.

NAVAL ENGINEERING.

Mechanical Drawing.—*a*, Elements; *b*, details and plans of machines.

Physics.—*a*, Heat; *b*, steam.

Chemistry.—*a*, Chemical philosophy; *b*, elements; *c*, analysis—qualitative and blow-pipe; *d*, coals, ores, and oils—lubricating and illuminating.

Thermo-dynamics.

Machines—*a*, Kinematics; *b*, theory of machines; *c*, prime movers—hydraulic motors, steam engines, air engines, electro-magnetic motors; *d*, construction of machines; *e*, location and erection of machines; *f*, designs and estimates for, and reviews of, special machines.

Construction.—*a*, Plans and estimates for boiler and machine shops, foundries, smelting works, and rolling mills; *b*, plans and estimates for ships' ways and slips.

Management of machinery.—Practical exercises with steam engines and boilers.

Iron ship-building.—*a*, Designing and construction; *b*, inspection; *c*, launching and repairs.

Practical exercises.—Personal manipulation of tools used in working woods and metals.

FRENCH.

Reading and writing the French language correctly; exercises in speaking it.

SPANISH.

Reading and writing the Spanish language correctly; exercises in speaking it.

NON-PROFESSIONAL PRACTICAL EXERCISES.

Fencing and gymnastics.

RESIGNATIONS, DISMISSALS, &C.,

From October 19, 1867, to September 30, 1868, Inclusive.

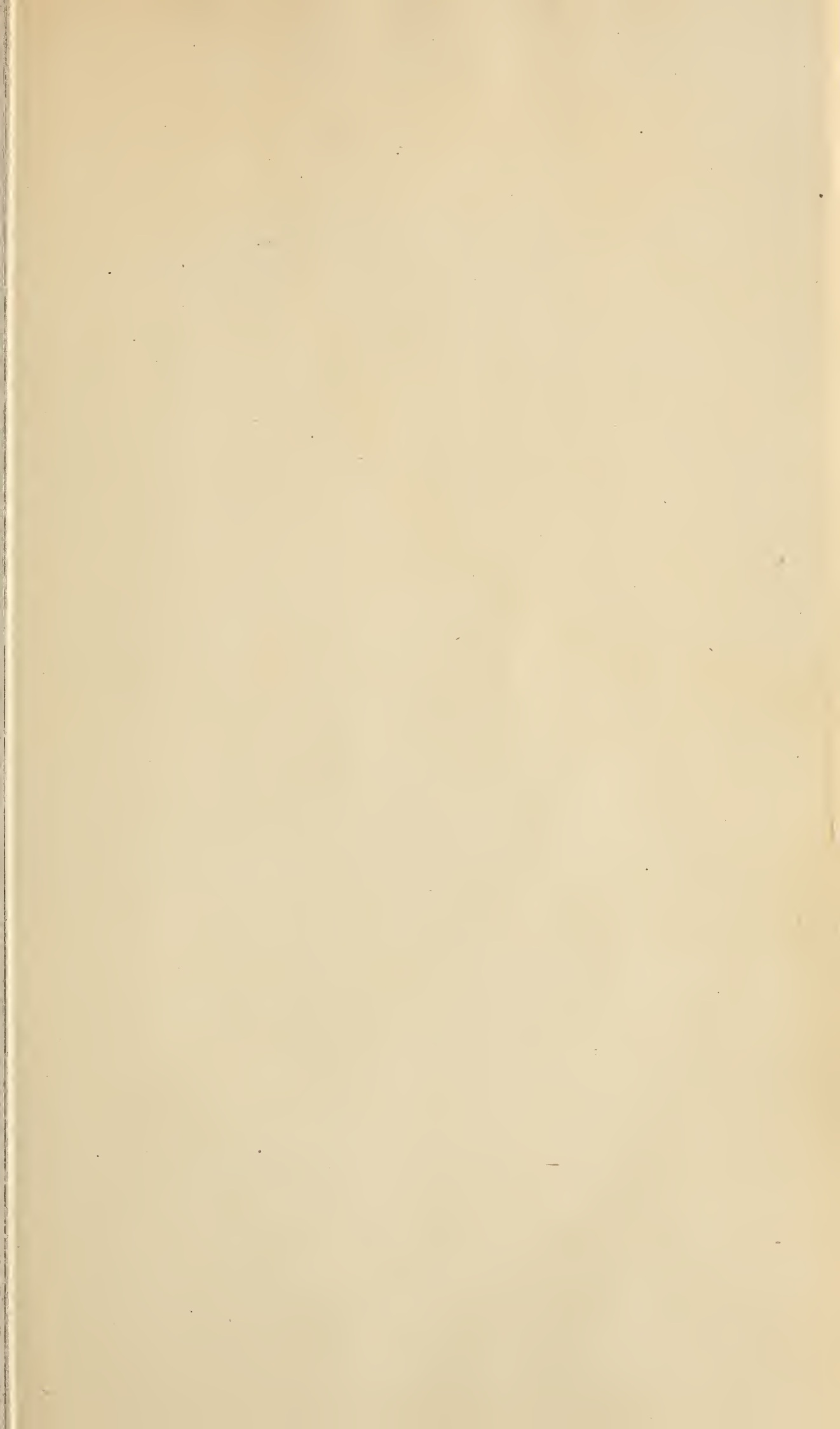
RESIGNATIONS.

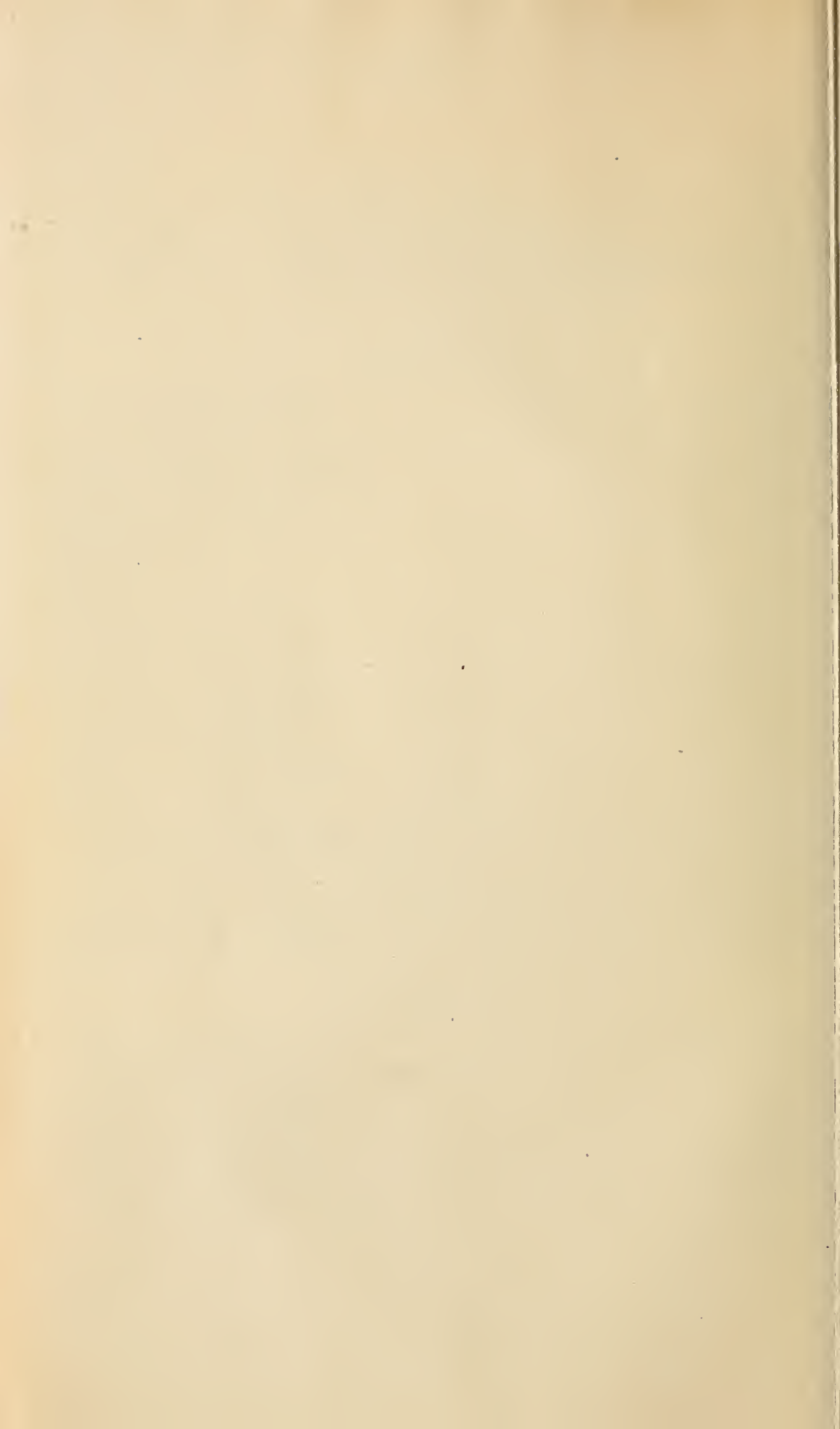
Midshipman Zadok T. Esmond.....	Dec. 26, 1867.
Midshipman Melbourne H. Ford.....	Jan. 8, 1868.
Midshipman Robert F. Lytle.....	Jan. 20, 1868.
Midshipman George H. Richmond.....	Feb. 20, 1868.
Midshipman Nisbet Turnbull.....	Mar. 26, 1868.
Midshipman Francis A. Kauffman.....	Mar. 13, 1868.
Midshipman Charles S. Richardson.....	Mar. 13, 1868.
Midshipman Francis L. Clark.....	Mar. 13, 1868.
Midshipman Winfield Gwynn.....	Mar. 13, 1868.
Midshipman Nelson Pinckney.....	Mar. 13, 1868.
Midshipman Charles H. M. Blake.....	June 19, 1868.
Midshipman Henry S. Williams.....	June 19, 1868.
Midshipman Franklin L. Greene*.....	June 19, 1868.
Midshipman William M. Harper.....	June 19, 1868.
Midshipman George W. Heistand.....	June 19, 1868.
Midshipman Albert T. Jenkins.....	June 19, 1868.
Midshipman Walter T. Livingston*.....	June 19, 1868.
Midshipman Frank E. Sawyer*.....	June 19, 1868.
Midshipman Harry C. Singer.....	June 19, 1868.
Midshipman Robert C. Van Horn.....	June 19, 1868.
Midshipman George H. Tuller.....	Aug. 28, 1868.
Midshipman Joseph C. Montgomery.....	Aug. 23, 1868.
Midshipman James R. Fletcher.....	Sept. 1, 1868.
Midshipman Francis W. Perkins.....	Sept. 1, 1868.
Cadet Engineer James P. Wilson.....	Mar. 30, 1868.

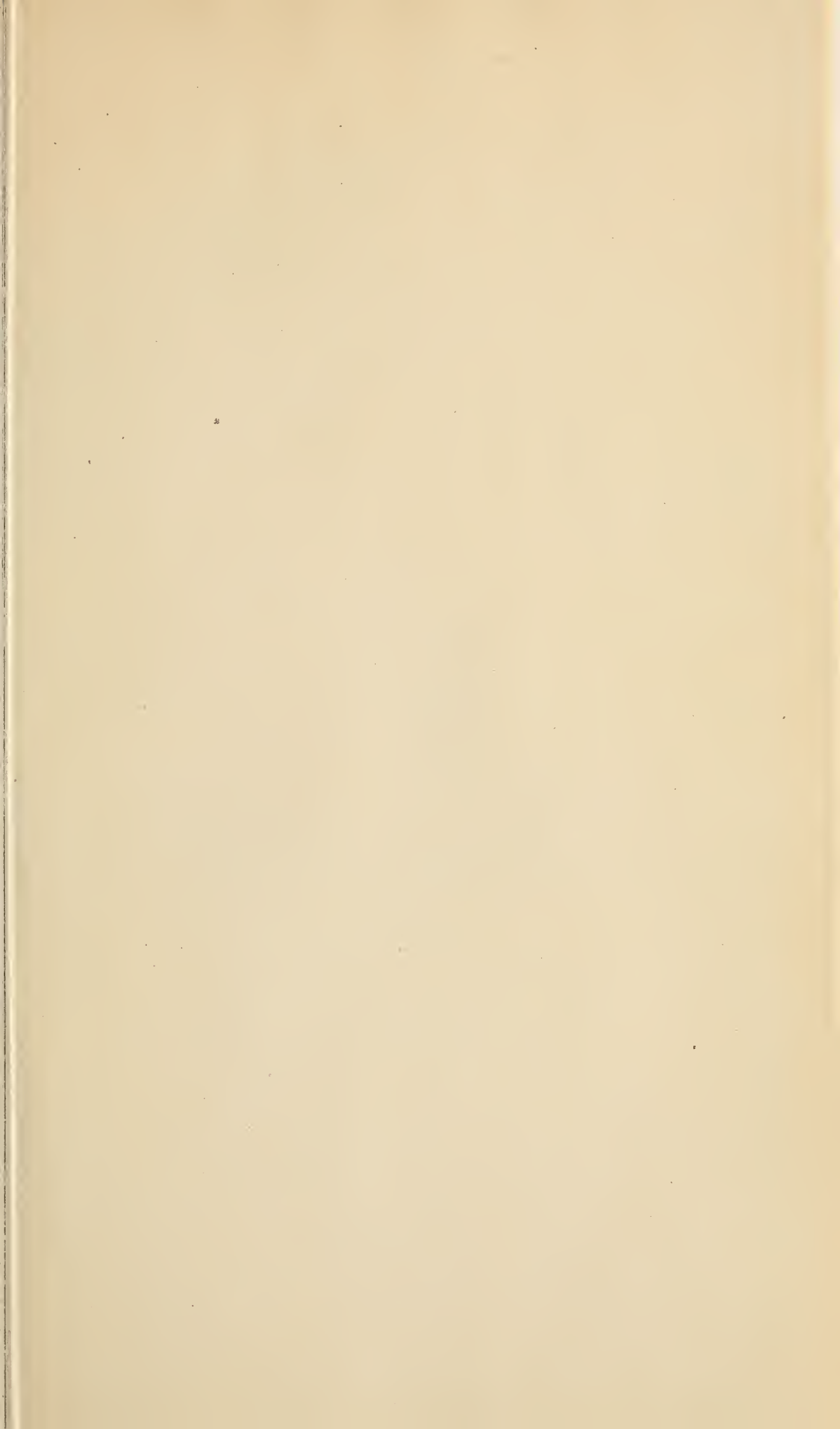
DISMISSALS.

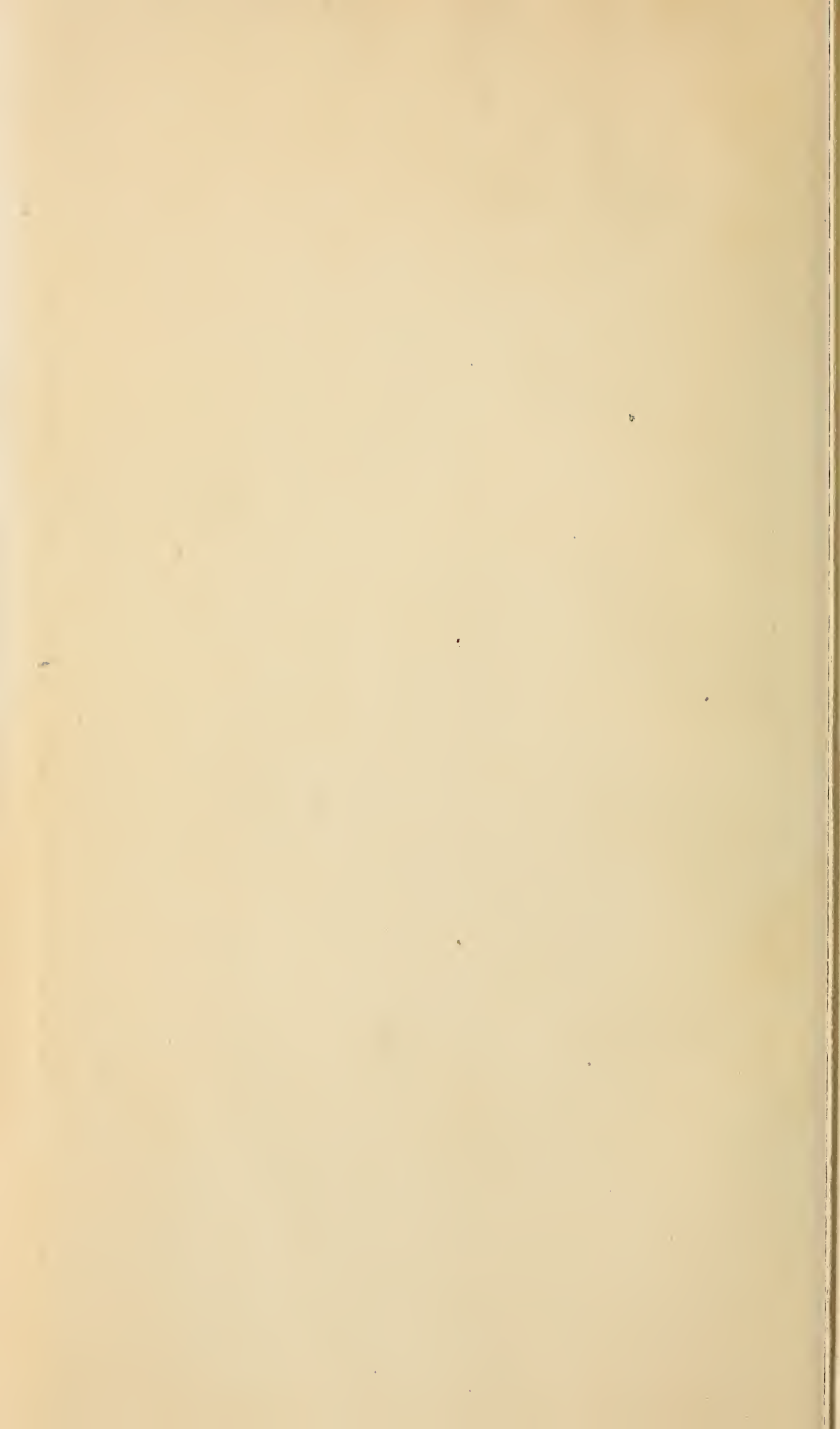
Midshipman Julian H. Brown*.....	Feb. 15, 1868.
Midshipman George D. Clark.....	Feb. 15, 1868.
Midshipman Thomas C. Denny*.....	Feb. 15, 1868.
Midshipman William A. Siter*.....	Feb. 15, 1868.
Midshipman Charles E. Keyes.....	Feb. 26, 1868.
Midshipman Charles H. Brahe*.....	May 9, 1868.
Midshipman Murray D. McConnell.....	Sep. 29, 1868.

Those marked thus * were re-instated.













Annual register

1868-1869

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